INSTITUTION FILE REDESIGN (IFR)
SUPPLEMENT TO PATCH DESCRIPTION

Patch XU*8.0*206

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Department of Veterans Affairs
VHA OI System Design & Development (SD&D)
Information Infrastructure Service (IIS)

Preface

This supplemental documentation is intended for use in conjunction with the Institution File Redesign (IFR) patch (i.e., XU*8.0*206). It outlines the details of the work involved in the IFR patch and gives guidelines for how the generic APIs can be used to standardize the collection and storage of Institution data across Veterans Health Administration (VHA).

The intended audience for this documentation is Veterans Health Information Systems and Technology Architecture (**V*IST*A**) sites' Information Resource Management (IRM) and the Automated Data Processing Application Coordinators (ADPACS). However, it can also be helpful to the Master Patient Index/Patient Demographics (MPI/PD) Team, the **V*IST*A** Messaging (HL7) Team, others in VHA Office of Information (OI) System Design & Development (SD&D), National **V*IST*A** Support (NVS), the OI NVS National Data Base Integration (NDBI) Team, the Program Office, and **V*IST*A** Data Systems and Integration (VDSI).

This documentation will be incorporated into the Kernel V. 8.0 documentation at a later date.

NOTE: *The Institution File Redesign Patch XU*8*206 was originally released to the field as Patch XU*8*126. This documentation supersedes the documentation that was released with that patch.*

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Acknowledgements

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The IFR Project Team would like to thank the following sites/organizations for their assistance in reviewing and/or testing the Institution File Redesign (IFR) Patch XU*8.0*206 software and documentation (listed alphabetically):

- Austin Automation Center (AAC)
- Battle Creek Veterans Affairs Medical Center (VAMC)
- Birmingham Office of Information Field Office (OIFO)
- Independent Verification & Validation (IV&V)
- VA North Texas Health Care System
- National Database Integration (NDBI)
- **V***IST***A** Data Systems & Integration (VDSI)
- Washington, D.C. VAMC

NOTE: *For a list of other supporting documents that were reviewed and contributors that were consulted throughout this project, please refer to "Appendix A—Reference Material" near the end of this manual.*

Orientation

This supplemental documentation to Institution File Redesign (IFR) patch (i.e., XU*8.0*206) is organized into three major sections based on the following functional divisions for inclusion into the Kernel V. 8.0 documentation at a later date:

1. User Manual Information
2. Programmer Manual Information
3. Technical Manual Information

How to Use this Manual

This manual uses several methods to highlight different aspects of the material:

- Descriptive text is presented in a proportional font (as represented by this font).
- "Snapshots" of computer online displays (i.e., roll-and-scroll screen captures/dialogues) and computer source code are shown in a *non*-proportional font and enclosed within a box.
  - User's responses to online prompts will be in boldface type.
  - The "**<Enter>**" text found within these snapshots indicates that the user should press the Enter (or Return) key on their keyboard.
  - Author's comments are displayed in italics or as "callout" boxes.

    NOTE: *Callout boxes refer to labels or descriptions usually enclosed within a box, which point to specific areas of a displayed image.*
- The  symbol is used to caution the reader to take special notice of critical information.
- All uppercase is reserved for the representation of M code, variable names, or the formal name of options, field/file names, and security keys (e.g., the XUPROGMODE security key).

How to Obtain Technical Information Online

Exported file, routine, and global documentation can be generated through the use of Kernel, MailMan, and VA FileMan utilities.

NOTE: *Methods of obtaining specific technical information online will be indicated where applicable under the appropriate topic. Please refer to Chapter 3, "Technical Manual Information," in this manual for further information.*

Help at Prompts

Kernel has online help and commonly used system default prompts. Users are strongly encouraged to enter question marks at any response prompt. At the end of the help display, you are immediately returned to the point from which you started. This is an easy way to learn about any aspect of Kernel.

To retrieve online documentation in the form of Help in Kernel:

- Enter a single question mark ("**?**") at a field/prompt to obtain a brief description. If a field is a pointer, entering one question mark ("**?**") displays the HELP PROMPT field contents and a list of choices, if the list is short. If the list is long, the user will be asked if the entire list should be displayed. A YES response will invoke the display. The display can be given a starting point by prefacing the starting point with an up-arrow ("^") as a response. For example, **^M** would start an alphabetic listing at the letter M instead of the letter A while **^127** would start any listing at the 127th entry.
- Enter two question marks ("**??**") at a field/prompt for a more detailed description. Also, if a field is a pointer, entering two question marks displays the HELP PROMPT field contents and the list of choices.
- Enter three question marks ("**???**") at a field/prompt to invoke any additional Help text that may be stored in Help Frames.

Obtaining Data Dictionary Listings

Technical information about files and the fields in files is stored in data dictionaries. You can use the List File Attributes option on the Data Dictionary Utilities submenu in VA FileMan to print formatted data dictionaries.

NOTE: *For details about obtaining data dictionaries and about the formats available, please refer to the "List File Attributes" chapter in the "File Management" section of the "VA FileMan Advanced User Manual."*

Assumptions About the Reader

This manual is written with the assumption that the reader is familiar with the **V*IST*A** computing environment.

It provides an overall explanation of the use, maintenance, and implementation of the Institution File Redesign (IFR) Software and the changes contained in Patch XU*8.0*206. However, no attempt is made to explain how the overall **V*IST*A** programming system is integrated and maintained. Such methods and procedures are documented elsewhere. We suggest you look at the various VA home pages on the World Wide Web (WWW) for a general orientation to **V*IST*A**. For example, check out the following web sites:

- Veterans Health Information Systems and Technology Architecture (**V*IST*A**), formerly known as the Decentralized Hospital Computer Program (DHCP) System:
  - http://www.va.gov/vama.htm#DHCP
  - http://vawww.va.gov/vama.htm#DHCP
- VHA OI System Design & Development (SD&D) Home Page: http://vista.med.va.gov/

Related Manuals and Other References

Readers who wish to learn more about Kernel should consult the following:

- "Kernel V. 8.0 Systems Manual"
- "Kernel V. 8.0 Technical Manual"
- "Kernel V. 8.0 Security Tools Manual"
- "Kernel V. 8.0 Installation Guide"
- "Kernel V. 8.0 Release Notes"
- The following web pages:
  - Institution File Redesign (IFR) Home Page:

    http://vista.med.va.gov/ifr/index.html
  - Kernel Home Page:

    http://vista.med.va.gov/kernel/index.html

  These sites contain other information and links to additional documentation.

The Institution File Redesign (IFR) and Kernel documentation is made available online, on paper, and in Adobe Acrobat Portable Document Format (PDF). The PDF documents *must* be read using the Adobe Acrobat Reader (i.e., ACROREAD.EXE), which is freely distributed by Adobe Systems Incorporated at the following web address:

http://www.adobe.com/

NOTE: *For more information on the use of the Adobe Acrobat Reader, please refer to the "Adobe Acrobat Quick Guide" at the following web address:*

http://vista.med.va.gov/iis/acrobat/index.html

DISCLAIMER: *The appearance of external hyperlink references in this manual does not constitute endorsement by the Department of Veterans Health Administration (VHA) of this Web site or the information, products, or services contained therein. The VHA does not exercise any editorial control over the information you may find at these locations. Such links are provided and are consistent with the stated purpose of this VHA Intranet Service.*

Chapter 1— User Manual Information

Introduction

This is the User Manual section of this supplemental documentation for the Institution File Redesign patch (i.e., XU*8.0*206). It will be incorporated into the "Kernel V. 8.0 Systems Manual" at a later date.

The intended audience for this chapter is Information Resource Management (IRM). However, it can also be helpful to others in System Design & Development, the Program Office, National **V*IST*A** Support (NVS), and **V*IST*A** Data Systems and Integration (VDSI).

Master Files—What is the Problem?

In an open-architecture healthcare environment, there often exists a set of common reference files used by one or more applications. These files are called "master files." The INSTITUTION (#4) and FACILITY TYPE (#4.1) files are two examples of Veterans Health Information Systems and Technology Architecture (**V*IST*A**) master files. With the advent of VA-wide data exchange initiatives, such as Master Patient Index/Patient Demographics (MPI/PD), the need to maintain reliable and accurate data within these master files across all Veterans Health Administration (VHA) sites has become more apparent.

Currently, the VHA does *not* automate updates and synchronization of *national* entries in standard master files utilized VHA-wide. Each individual VHA site is responsible for updating and maintaining the INSTITUTION and FACILITY TYPE master files located at their site. Through time and due to many unforeseen circumstances, these master files no longer contain accurate, synchronized *national* data. Thus, there is a need to provide a mechanism to automatically maintain reliable, accurate, and synchronized *national* data within the INSTITUTION and FACILITY TYPE master files across all sites VHA-wide.

Purpose of Patch XU*8.0*206

The Institution File Redesign (IFR) patch (i.e., XU*8.0*206) will provide the mechanism to standardize *national* entries in **V*IST*A**'s INSTITUTION (#4) and FACILITY TYPE (#4.1) master files and automatically update and maintain synchronization of these files at all sites VHA-wide. It will also provide the baseline software to maintain other master files in the future. Thus, this patch will ensure that the data in the INSTITUTION and the FACILITY TYPE master files will be reliable, accurate, and consistent VHA-wide. This will allow sites to easily establish data sharing relationships without the overhead of researching each other's INSTITUTION and FACILITY TYPE file's data. This in turn ensures that future CIO initiatives involving multi-site data exchange will operate more effectively and efficiently.

In addition, this patch does *not* alter the currently existing procedures for the following:

- **Requesting a New Station Number—**The Information Management Service (045A4) will continue to approve the official Station Numbers. Non-VA Institutions must receive a Station Number to be included in the Institution Master File; VISN directors will continue to request new Station Numbers from the Chief Network Officer (10N).
- **Austin Automation Center (AAC) Coordination Requirements—**The coordination requirements currently placed on sites by the Austin Automation Center (AAC) will *not* be affected by this patch. The Institution Master File (IMF) on FORUM will immediately be updated upon notification from the Information Management Service (045A4). That updated data will then be immediately transmitted to all local INSTITUTION files (#4) VHA-wide via the Master File Server (MFS). This patch does *not* require any additional coordination with the AAC. The same, current procedures will be followed when the AAC has *not yet* updated its tables to include new Station Numbers stored in the INSTITUTION file.
- **National Data Base Integration (NDBI) Procedures—**NDBI will create new integrated sites *after* a new Station Number has been added to the Institution Master File (IMF) on FORUM and that information has been transmitted VHA-wide. Subsequent procedures followed by NDBI will remain the same.

Patch XU*8.0*206 Detailed Solution

The Information Infrastructure Service (IIS) will release Patch XU*8.0*206 to automate the update and synchronization of the INSTITUTION (#4) and FACILITY TYPE (#4.1) master files VHA-wide.

Patch Components

IFR Patch XU*8.0*206 establishes the following components, which will be described in greater detail in the topics that follow:

- **Institution Master File (IMF)—**A coordinated and synchronized INSTITUTION file (#4). The INSTITUTION file located on FORUM will serve as the IMF that originates the data entries flagged as "National" and approved by Information Management Service (045A4) that will be transmitted to and synchronized with each local site's INSTITUTION file VHA-wide.

  NOTE: *Local-based Institution data will not be stored in the INSTITUTION file located on FORUM.*

- **Facility Type Master File (FMF)—**A coordinated and synchronized FACILITY TYPE file (#4.1). The FACILITY TYPE file located on FORUM will serve as the FMF that originates the data entries flagged as "National" and approved by Information Management Service (045A4) that will be transmitted to and synchronized with each local site's FACILITY TYPE file VHA-wide.

  NOTE: *Local-based Facility Type data will not be stored in the FACILITY TYPE file located on FORUM.*

- **Master File Server (MFS)—**A server mechanism that will:

- Broadcast updated *national* entries in the master file(s) on FORUM (e.g., IMF) for update and synchronization VHA-wide.
- Allow local sites to query the INSTITUTION (#4) and FACILITY TYPE (#4.1) master files on FORUM for cleanup of the local site's master files (see the following bulleted item).

One or more FORUM Institution Master File Administrator(s) will be assigned to maintain and update the INSTITUTION (#4) and FACILITY TYPE (#4.1) master files on FORUM for propagation VHA-wide.

- **Cleanup Utilities—**Utilities to help sites "clean up" their local INSTITUTION file (#4) and FACILITY TYPE file (#4.1). This "cleanup" includes resolution of duplicate Station Numbers and a merge of *national* data from the Institution Master File (IMF) located on FORUM with the data in a local site's INSTITUTION file (#4). In the background, it will also merge *national* data from the Facility Type Master File (IMF) located on FORUM with the data in a local site's FACILITY TYPE file.

  NOTE: *For more specific information on the Cleanup Utilities, please refer to the "Institution File Cleanup Process" topic in "Appendix B—Local Site IMF Administrator(s) Duties" in this manual.*

- **Historical Institution Data—**A new History multiple in the INSTITUTION file (#4) that will contain historical data with effective dates regarding *national* Institution Station Number and Name changes.

  NOTE: *For more specific information on the historical data, please refer to the "New HISTORY Field (#999) in the INSTITUTION File* (#4)*" topic in Chapter 2, "Technical Manual Information," in this manual.*

- **Application Programmer Interfaces (APIs)—**Provide entry points for programmers in order to:
  - Customize the Master File Server (MFS).
  - Return time-sensitive (historical) information from the INSTITUTION file (#4).

  NOTE: *For more information on the APIs, please refer to the "Application Programmer Interfaces (APIs)" topic in the Chapter 2 in this manual.*

FORUM INSTITUTION MASTER FILE (IMF)

IFR Patch XU*8.0*206 will establish the INSTITUTION file (#4) located on FORUM as the Institution Master File (IMF). The IMF on FORUM (or "Gold" file) will provide the following:

- Storage of all *national* Station Numbers approved by Information Management Service (045A4), regardless of their current status (e.g., active, inactive, etc.). The software will *not* allow duplicate Station Numbers. Sites *cannot* edit the STATION NUMBER field nor can they edit certain other fields of a *national* entry in their local INSTITUTION file (#4); the software will lock them out.

  NOTE: *For more information on editing local or National entries in the INSTITUTION file, please refer to the "Add/Modify Local Institution Data" topic in "Appendix B—Local Site IMF Administrator(s) Duties" in this manual.*

- Storage of new *national* Health Care facility names.

- Standardized Institution names VHA-wide for IMF entries.

Per VHA DIRECTIVE 97-058, which provides guidance for the assignment of Station Number suffix identifiers for outpatient clinic facilities, all outpatient clinic facilities will be given a Station Number suffix identifier. Requests to add or delete an outpatient clinic are submitted to the Director, Information Management Service (045A4) through the Chief Network Office (10N) at VHA Headquarters. The Network Management Support Office (10NA) notifies the respective VISN of approved Station Number suffix identifier.

VHA System Design & Development's Information Infrastructure Service (IIS) Team will be added to the Information Management Service distribution list (i.e., 045A4). One or more member(s) of the IIS team will initially serve as the FORUM Institution Master File Administrator(s) who will be responsible for updating the Institution Master File (i.e., the INSTITUTION file located on FORUM) with *national* Station Number, Name, and other *national* Institution data changes.

NOTE: *The duties of the FORUM Institution Master File Administrator(s) are explained in greater detail in the "Appendix C—FORUM (Production) IMF Administrator(s) Duties" in this manual.*

FORUM FACILITY TYPE MASTER FILE (FMF)

IFR Patch XU*8.0*206 will establish the FACILITY TYPE file (#4.1) located on FORUM as the Facility Type Master File (FMF). The FMF on FORUM will provide the following:

- Storage of all *national* Facility Types approved by Information Management Service (045A4).
- Storage of new *national* Health Care Facility Types.
- Standardized Facility Types VHA-wide for FMF entries.

VHA System Design & Development's Information Infrastructure Service (IIS) Team will be added to the 045A4 distribution list. One or more member(s) of the IIS team will initially serve as the FORUM Institution Master File Administrator(s) who will be responsible for updating the Facility Type Master File (i.e., the FACILITY TYPE file located on FORUM) with *national* Facility Type data changes.

NOTE: *The duties of the FORUM Institution Master File Administrator(s) are explained in greater detail in the "Appendix C—FORUM (Production) IMF Administrator(s) Duties" in this manual.*

MASTER FILE SERVER (MFS)

The INSTITUTION (#4) and FACILITY TYPE (#4.1) files, as well as other master files, are integral components of **V*IST*A** and are referenced by numerous applications. Once a master file has been standardized VHA-wide, measures must be taken to maintain uniformity and synchronicity. The current method of update notifications cannot keep up with today's messaging requirements. Thus, in order to maintain uniformity and synchronicity of master files VHA-wide, IFR Patch XU*8.0*206 will create a Master File Server (MFS) that will specifically process the INSTITUTION and FACILITY TYPE master files.

NOTE: *The need to standardize other master files has also been identified. Although a separate project named "Standard Files and Tables (SFT)" will address those files directly, the server mechanism interface implemented in this project will be designed with support for additional*

standard files in mind, thus, cutting development time of the Standard Files and Tables project significantly.

For more information regarding the Standard Files and Tables (SFT) project, please visit the Information Infrastructure Service SFT web site at the following web address:

http://vista.med.va.gov/sft/

Once the Cleanup of the local site's INSTITUTION file (#4) has been performed and the Institution Master File data from FORUM is merged with the local INSTITUTION file, further updates to the INSTITUTION file are handled automatically by the Master File Server mechanism.

NOTE: *For more information on the Cleanup of the local site's INSTITUTION file (#4), please refer to the "Institution File Cleanup Process" topic in "Appendix B—Local Site IMF Administrator(s) Duties" in this manual.*

The FORUM Institution Master File Administrator(s) will receive update notifications (e.g., new CBOC Station Numbers) directly from the Information Management Service via the 045A4 distribution list.

The FORUM Institution Master File Administrator(s) will then add/edit the INSTITUTION file entry on FORUM (i.e., IMF). This will result in the building of an HL7 message containing the update(s), which will be sent to all **V***IST***A** sites. The message will be processed automatically at the sites, updating the local INSTITUTION file with the new/updated entry(ies) from the FORUM IMF.

NOTE: *For more information on the duties of the FORUM Institution Master File Administrator(s), please refer to the "Appendix C—FORUM (Production) IMF Administrator(s) Duties" in this manual.*

An HL7 (**V***IST***A** Messaging) interface specification for interaction with the Master File Server (MFS) will be defined. **V***IST***A**'s VA MailMan and HL7 (**V***IST***A** Messaging) software, utilizing bi-directional data transmission of HL7 messages over TCP/IP, provides support for communication between the FORUM (server) and VHA site (client) applications. The Master File Server (MFS) will use HL7 (**V***IST***A** Messaging) software to deliver updates from the master files on FORUM to the sites' local files.

The MFS and **V***IST***A**'s HL7 software will provide the following functionality, which will be described in greater detail in the topics that follow:

- **Broadcast Updates**—Implement a server mechanism to broadcast FORUM's Institution Master File (IMF) updates VHA-wide.
- **Handle Update Message—**Implement a message handler to update the local site's INSTITUTION (#4) file.
- **Query Server—**Provide functionality to query FORUM's Institution Master File and Facility Type Master File.
- **Handle Query Response—**Provide functionality to handle query responses.
- **Track Station Number Changes—**Track Station Number changes in the INSTITUTION file (#4) via bulletins/E-mail messages and the **V***IST***A** HL7 software.

- **Application Programmer Interfaces (APIs)—**Provide Application Programmer Interfaces (APIs) to set up required parameter entries and to build and send HL7 messages.

Broadcast Updates

The Master File Server (MFS) on FORUM will implement a server mechanism to broadcast FORUM's Institution Master File (IMF) updates VHA-wide.

- Updates to the Institution Master File (IMF) will trigger an HL7 unsolicited update event message.
- The Master File Notification (MFN) message will be broadcast VHA-wide.

Handle Update Message

The HL7 (**V*IST*A** Messaging) software at the **V*IST*A** site (client), upon receipt of an HL7 Master File message, will invoke a Handler routine to:

- Process the Master File Notification (MFN) message type sent by the Master File Server (MFS) on FORUM.
- Add/Update the local site's INSTITUTION file (#4) entries with the *national* entries transmitted from the FORUM master files.

Query Server

The MFS provides functionality to query FORUM's Institution Master File (IMF) and Facility Type Master File (FMF). Specifically, the Master File Server Query process:

- MFS at the site (client)—Builds Master File Query (MFQ) messages to send to FORUM (server).
- MFS on FORUM (server)—Handles Master File Query (MFQ) message types sent by the site (client).
- MFS on FORUM (server)—Sends an appropriate Master File Response (MFR) message in return back to the site (client).

Handle Query Response

The HL7 (**V*IST*A** Messaging) software at the **V*IST*A** site (client) will invoke a Handler routine to:

- Process the Master File Response (MFR) message from FORUM (server). The query definition in the HL7 QRD segment, based on parameters passed to a Master File Server interface, will specify the method of processing.
- Add/Update the INSTITUTION (#4) and FACILITY TYPE (#4.1) file entries or store the tables in a global array.

Track Station Number Changes

The INSTITUTION file (#4) Station Number changes will be tracked.

- Tracking occurs via the existing functionality of the HL7 (**V*IST*A** Messaging) software (i.e., HL7 MESSAGE TEXT file [#772]).
- A new mail group (i.e., XUMF INSTITUTION) will be created to receive bulletins regarding updates to the INSTITUTION file (#4). Sites will be notified via a **V*IST*A** MailMan bulletin when their local INSTITUTION file has been updated with *national* entries from the Institution Master File (IMF) on FORUM via the Master File Server (MFS).
- If an error occurs, a bulletin will be sent to the FORUM Institution Master File Administrator(s).

MFS Application Programmer Interfaces (APIs)

IFR Patch XU*8.0*206 will provide APIs that set up required parameter entries and build and send HL7 messages:

- Interface to set up parameters used by the interface that builds and sends the message and the HL7 Master File Message Handler routine:

  MAIN^XUMFP(IFN,IEN,TYPE,PARAM,ERROR)

- Interface to build and send the HL7 message:

  MAIN^XUMFI(IFN,IEN,TYPE,PARAM,ERROR)

NOTE: *For more information on the APIs, please refer to the "Application Programmer Interfaces (APIs)" topic in the Chapter 2 in this manual.*

INSTITUTION FILE ENHANCEMENTS

IFR Patch XU*8.0*206 incorporates modifications to the INSTITUTION file (#4) Data Dictionary and provides Application Programmer Interfaces (APIs).

Institution File Data Dictionary Modifications

Modifications to the INSTITUTION file (#4) Data Dictionary provides the following functionality:

- Prevents editing of *national* data in the INSTITUTION file via an Input Transform.
- Provides an Inactive Facility Flag identifier with an Effective Date.
- Requires all *national* entries in the INSTITUTION file be flagged as "National."
- Enhances the INSTITUTION file by adding a History sub-file (multiple) to record integrations (realignments), merge, deactivation, and Name updates. Creates a History sub-file (multiple) to record the following date-sensitive information:
  - Integrations (Realignments)
  - Name Changes/Updates

- Deactivations
- Activations

Institution File Application Programmer Interfaces (APIs)

Due to site integrations, Name changes, Station Number deactivations/activations, legacy Station Numbers, and new facilities, a need to return Institution time-sensitive (historical) information has been identified.

- Return historical time-sensitive information.
- Return realignment and merge pointers.

NOTE: *For more information on the APIs, please refer to the "Application Programmer Interfaces (APIs)" topic in the Chapter 2 in this manual.*

Step-By-Step Procedures

For detailed step-by-step procedures in maintaining/troubleshooting a sites' local Institution Master File (IMF), FORUM's production IMF, and Bay Pines' Test IMF, please refer to the following appendices:

- **Appendix B—Local Site IMF Administrator(s) Duties**
- **Appendix C—FORUM (Production) IMF Administrator(s) Duties**
- **Appendix D—Bay Pines (Test) IMF Administrator(s) Duties**

Chapter 2— Programmer Manual Information

This is the Programmer Manual section of this supplemental documentation for the Institution File Redesign (IFR) patch (i.e., XU*8.0*206). It will be incorporated into the "Kernel V. 8.0 Systems Manual" at a later date.

The intended audience for this chapter is Information Resource Management (IRM). However, it can also be helpful to others in Technical Service, the Program Office, National **V*IST*A** Support (NVS), and **V*IST*A** Data Systems and Integration (VDSI).

INSTITUTION File Data Dictionary Modifications

Modified Fields in the INSTITUTION File (#4)

NAME (#.01)

IFR Patch XU*8.0*206 modified the NAME field (#.01) to prevent *national* entries from being edited locally.

NOTE: *Local entries can use the same name that is found in a national entry. However, sites should be aware that identical names in both a national and a local entry might cause confusion at the local level (e.g., when running local reports based on the Institution Name).*

STATE (#.02)

IFR Patch XU*8.0*206 modified the STATE field (#.02) to prevent *national* entries from being edited locally. This field serves as a Write Identifier.

STATUS (#11)

IFR Patch XU*8.0*206 modified the STATUS field (#11). The input transform was modified to prevent setting of the STATUS field (#11) to National. Only the Cleanup Utilities of the local site's INSTITUTION file or the Master File Server (MFS) mechanism can flag *national* entries as "National." A site cannot create National entries or flag *local* entries as National. Also, since the INACTIVE FACILITY FLAG field (#101, that follows) flags Inactive entries, the current "INACTIVE" value for the STATUS field was removed from the SET OF CODES for this field. Another reason to remove INACTIVE from the SET OF CODES was due to the fact that an entry can be both INACTIVE and National (or Local for that matter). This field will be required.

FACILITY TYPE (#13)

IFR Patch XU*8.0*206 modified the FACILITY TYPE field (#13) to prevent *national* entries from being edited locally. This field serves as a Write Identifier.

STATION NUMBER (#99)

IFR Patch XU*8.0*206 modified the STATION NUMBER field (#99) to prevent it from being edited locally. The STATION NUMBER field (#99) is reserved for *national* entries only! It will be maintained by the Master File Server (MFS) mechanism. The Information Management Service (045A4) assigns Station Numbers (i.e., a three-digit number plus any modifiers). This field must be from 3 to 7 characters in length and must *not* contain an embedded up-arrow ("^"). This field serves as a Write Identifier.

OFFICIAL VA NAME (#100)

IFR Patch XU*8.0*206 renamed the OFFICAL VA NAME field (#100) to OFFICIAL VA NAME. It also modified this field to prevent *national* entries from being edited locally. In addition, the OFFICIAL VA NAME field (#100) was increased from a maximum of 30 characters of FREE TEXT to 80 characters. This is to allow for the longer, new health care system names.

INACTIVE FACILITY FLAG (#101)

IFR Patch XU*8.0*206 modified the INACTIVE FACILITY FLAG field (#101) to prevent *national* entries from being edited locally. Also, the SET OF CODES for this field were changed from "Y" (YES) to "1" (INACTIVE). This field is used to help identify inactive entries during a file lookup. This field, along with the EFFECTIVE DATE (#.01) in the HISTORY Multiple (#999), also serves as a Write Identifier.

New HISTORY Field (#999) in the INSTITUTION File (#4)

With site integrations, NAME changes, STATION NUMBER deactivations/activations, legacy STATION NUMBERs, and new facilities, a need to return Institution time-sensitive (i.e., historical) information has been identified. The IFR patch will add a HISTORY field (#999) multiple (subfile) to the INSTITUTION file (#4) to store this information.

The HISTORY field (#999) multiple is composed of the following fields:

EFFECTIVE DATE (#.01)

The effective date related to the update (historical) event.

NAME (CHANGED FROM) (#.02)

If the event was a NAME change, then this field will hold the Field #.01 value *prior* to the edit that took place on the EFFECTIVE DATE (#.01, described previously).

OFFICIAL VA NAME (CHANGED FROM) (#.03)

If the event was an OFFICIAL VA NAME change, then this field will hold the Field #100 value *prior* to the edit that took place on the EFFECTIVE DATE (#.01, described previously).

REALIGNED TO (#.05)

If the facility was realigned due to integration, or some other reorganization, and a new STATION NUMBER (#99) was assigned, then this field holds a pointer to the INSTITUTION file entry with the *new* STATION NUMBER for this facility.

REALIGNED FROM (#.06)

If the facility was realigned due to integration, or some other reorganization, and a new STATION NUMBER (#99) was assigned, then this field holds a pointer to the INSTITUTION file entry with the *old* STATION NUMBER for this facility.

DEACTIVATED FACILITY / STA # (#.07)

If the facility or STATION NUMBER (#99) was deactivated, then this flag is set (1) for this EFFECTIVE DATE (#.01, described previously). A facility and/or STATION NUMBER can be deactivated and activated. An API will use this flag, together with the EFFECTIVE DATE (#.01, described previously), to determine the status of a facility/STATION NUMBER on a specific date.

NOTE: *For more information on the API, please refer to the "F4^XUFA4—Multipurpose API" topic that follows in this Chapter.*

ACTIVATED FACILITY (#.08)

If the facility or STATION NUMBER (#99) is new or was activated, then this flag is set (i.e., it is set to "1") for this EFFECTIVE DATE (#.01, described previously). A facility and/or STATION NUMBER can be deactivated and then activated. An API will use this flag, together with the EFFECTIVE DATE (#.01, described previously), to determine the status of a facility/STATION NUMBER on a specific date.

NOTE: *For more information on the API, please refer to the "F4^XUFA4—Multipurpose API" topic that follows in this Chapter.*

New Write Identifiers

Four new write identifiers are added with the IFR patch and replace the current field identifiers. The XUMFPOST post-init routine deletes the previous field identifiers. The new write identifiers are:

- STATE (#.02)
- FACILITY TYPE (#13)
- STATION NUMBER (#99)
- INACTIVE FACILITY FLAG (#101) with EFFECTIVE DATE (#.01 field of the HISTORY field [#999] Multiple)

NOTE: *For more information on Write Identifiers, please refer to the "Write Identifiers" topic under the "Developer Tools" topic in the VA FileMan V. 22.0 Programmer Manual.*

Obsolete Fields Removed

The XUMFPOST post-init will remove the following obsolete (asterisked) fields from the INSTITUTION file:

- *OUTPUT HEADER (#.04)
- *STATION NAME (#7)
- *MAILMAN FLAG (#12)
- *OLD AMIS NUMBER (#77)
- *G&L HEADER (#10)
- *PACKAGE X-REF (#30) subfile

FACILITY TYPE File Data Dictionary Modifications

New Field in the FACILITY TYPE File (#4.1)

STATUS (#3)

IFR Patch XU*8.0*206 added the STATUS field (#3) to the FACILITY TYPE file (#4.1). This field is a SET OF CODES that consist of the following:

- **"N"—**Flags "National" entries.
- **"L"—**Flags "Local" entries.

Application Programmer Interfaces (APIs)

This topic lists and describes the Kernel callable routines provided by the Institution File Redesign (IFR) patch (i.e., XU*8.0*206). These calls are either Supported Reference Integration Agreements (IAs) or Controlled Subscription IAs.

NOTE: *For a list of the Integration Agreements (IAs) related to the Institution File Redesign patch, please refer to the "Integration Agreements (IA)" topic in the "External Relations" topic in Chapter 3, "Technical Manual Information,," in this manual.*

Supported References

These are the Kernel Supported Reference Integration Agreements (IAs) for Institution File Redesign (IFR) Patch XU*8.0*206. Supported Reference APIs are open for use by any **V*IST*A** application as defined by the IA. They have been recorded as a Supported Reference in the IA database on FORUM. It is not required that **V*IST*A** packages request an IA to use them.

The Supported Integration Agreements (IAs) are listed alphabetically by Entry Point below.

$$IEN^XUAF4—RETURN IEN API

Description:

This function returns the Internal Entry Number (IEN) for the entry of a given STATION NUMBER (#99).

Format:

```
$$IEN^XUAF4(STA)
```

Input Parameters:

STA	(Required) Station Number.

Output Parameters:

$$	Internal Entry Number (IEN) or null (error).

Example:

```
>S IEN=$$IEN^XUAF4("528A5")
>W IEN
532
```

$$O99^XUAF4—MERGED DUPLICATES FUNCTION API

Description:

This function returns a pointer to the Internal Entry Number (IEN) of the new STATION NUMBER in the INSTITUTION file, if this entry was merged due to a duplicate STATION NUMBER (#99).

Format:

```
$$O99^XUAF4(IEN)
```

Input Parameters:

IEN	(Required) Internal Entry Number.

Output Parameters:

$$	Pointer to the new Station Number INSTITUTION file (#4) IEN.

Example:

```
>S NEWIEN=$$O99^XUAF4(6538)
>W NEWIEN
6164
>W ^DIC(4,6164,99)
519HB^^^
```

$$RF^XUAF4—REALIGNED FROM FUNCTION API

Description:

Given an INSTITUTION file Internal Entry Number (IEN), this function returns the IEN, STATION NUMBER, and EFFCTIVE DATE that is pointed to by the REALIGNED FROM field (#.06) in the HISTORY field (#999) Multiple.

Format:

```
$$RF^XUAF4(IEN)
```

Input Parameters:

IEN	(Required) Internal Entry Number.

Output Parameters:

$$	"IEN^station number^date"

Example:

```
>S IEN=$$RF^XUAF4(7020)
>W IEN
500^500^3000701
```

$$RT^XUAF4—REALIGNED TO FUNCTION API

Description:

Given an INSTITUTION file Internal Entry Number (IEN), this function returns the IEN, STATION NUMBER, and EFFCTIVE DATE that is pointed to by the REALIGNED TO field (#.05) in the HISTORY field (#999) Multiple.

Format:

```
$$RT^XUAF4(IEN)
```

Input Parameters:

IEN	(Required) Internal Entry Number.

Output Parameters:

$$	"IEN^station number^date"

Example:

```
>S IEN=$$RT^XUAF4(500)
>W IEN
7020^528A8^3000701
```

$$STA^XUAF4—RETURN STATION NUMBER FUNCTION API

Description:

This function returns the STATION NUMBER (#99) for the entry of a given Internal Entry Number (IEN).

Format:

```
$$STA^XUAF4(IEN)
```

Input Parameters:

IEN	(Required) Internal Entry Number.

Output Parameters:

$$	Station Number or "0^error message"

Example:

```
>S STA=$$STA^XUAF4(7020)
>W STA
528A8
```

$$TF^XUAF4—TREATING FACILITY FUNCTION API

Description:

This function returns the truth-value (Boolean) of a given Internal Entry Number (IEN) for the question "Is this a medical treating facility?"

Format:

```
$$TF^XUAF4(IEN)
```

Input Parameters:

IEN	(Required) Internal Entry Number.

Output Parameters:

$$	1=Yes—a treating facility. 0=No—*not* a treating facility.

Example:

```
>S TF=$$TF^XUAF4(7020)
>W TF
1
```

F4^XUFA4—MULTIPURPOSE API

Description:

This API returns the Internal Entry Number (IEN) and other data, including historical information, for a given STATION NUMBER (#99).

Format:

```
F4^XUFA4(STA,ARRAY,FLAG,DATE)
```

Input Parameters:

STA	(Required) Station Number.	
[.]ARRAY	(Required) $NAME reference for return values.	
FLAG	(Optional) Flags that represent the Station Number Status. Possible values are:	
	A	Active entries only.
	M	Medical treating facilities only.
DATE	(Optional) Return name on this VA FileMan internal date.	

Output Parameters:

ARRAY	IEN or "0^error message"
ARRAY("NAME")	Name
ARRAY("VA NAME")	Official VA Name
ARRAY("STATION NUMER")	Station Number
ARRAY("TYPE")	Facility Type Name
ARRAY("INACTIVE")	Inactive Date (0=not inactive) ***NOTE:*** *If inactive date not available, then 1.*
ARRAY("REALIGNED TO")	IEN^station number^date
ARRAY("REALIGNED FROM")	IEN^station number^date
ARRAY("MERGE",IEN)	Merged Records

Example:

```
>D F4^XUAF4("528A8",.ARRAY)
>ZW ARRAY
ARRAY=7020
ARRAY("INACTIVE")=0
ARRAY("NAME")=ALBANY
ARRAY("REALIGNED FROM")=500^500^3000701
ARRAY("STATION NUMBER")=528A8
ARRAY("TYPE")=VAMC
ARRAY("VA NAME")=VA HEALTHCARE NETWORK UPSTATE NEW YORK SYSTEM VISN 2 - ALBANY
DIVISION
```

Controlled Subscription References

These are the Kernel Controlled Subscription Integration Agreements for Institution File Redesign (IFR) Patch XU*8.0*206. They contain attributes/functions that *must* be controlled in their use. They have been recorded as a Controlled subscription Reference in the IA database on FORUM. Permission to use them is granted by the custodian package (i.e., Kernel) on a one-by-one basis.

The Controlled Subscription Integration Agreements (IAs) are listed below.

MAIN^XUMFP—MASTER FILE PARAMETER API

Description:

This API sets up required parameters used by the HL7 Master File Message Builder Interface and the HL7 Master File message handler. The interface defines required parameters and serves as a common interface for parameter initialization. This interface is the enabling component of the Master File Server (MFS) mechanism allowing VA FileMan Master Files to be maintained by server including files with multiple fields and extended references.

The programmer may set any PARAM parameter before or after the interface call and override the default value.

Format:

```
MAIN^XUMFP(IFN,IEN,TYPE,PARAM,ERROR)
```

Input Parameters:

IFN	(Required) Internal File Number.
IEN	(Required) Internal Entry Number.
	Single entry (pass by value). Example: IEN=1

	Multiple entries (pass by reference). Example: IEN(1)="" IEN(2)=""
	ALL national entries (pass by value). Example: IEN="ALL"
TYPE	(Required) Message TYPE. Possible values are: 0 = MFN - unsolicited update. 1 = MFQ - query particular record and file. 3 = MFQ - query particular record in array. 5 = MFQ - query group records file. 7 = MFQ - query group records array. 11 = MFR - query response particular record file. 13 = MFR - query response particular record array. 15 = MFR - query response group records file. 17 = MFR - query response group records array.

Input/Output Parameters:

PARAM("PROTOCOL")	IEN Protocol file (#101).
PARAM("BROADCAST")	Broadcast message to all **V***IST***A** sites.
PARAM("LLNK")	Logical link in HLL("LINKS",n) format.

QRD—Query definition	HL7 Sequence	HL7 Data Type
PARAM("QDT")	Query Date/Time	TS
PARAM("QFC")	Query Format Code	ID
PARAM("QP")	Query Priority	ID
PARAM("QID")	Query ID	ST
PARAM("DRT")	Deferred Response Type	ID
PARAM("DRDT")	Deferred Response Date/Time	TS
PARAM("QLR")	Quantity Limited Request	CQ
PARAM("WHO")	Who Subject Filter	XCN
PARAM("WHAT")	What Subject Filter	CE
PARAM("WDDC")	What Department Data Code	CE
PARAM("WDCVQ")	What Data Code Value Qual.	CM
PARAM("QRL")	Query Results Level	ID

XCN data type of QRD WHO parameter

1ST component is one of the following:		
NAME		Value of NAME field (#.01) for Internal Entry Number (IEN).
ALL		String represents all national entries.
IEN ARRAY		String represents entries passed in IEN array.
9th component	D	Source table (VA FileMan cross-reference).
10th component	045A4	Assigning authority.

CE data type of QRD WHAT parameter

1ST component	4	Identifier
2nd component	IFN	Text
3rd component	VA FM	Name of coding system

MFI—Master File Identification

PARAM("MFI")	Master File Identifier
PARAM("MFAI")	Master File Application Identifier
PARAM("FLEC")	File-Level Event Code
PARAM("ENDT")	Entered Data/Time
PARAM("MFIEDT")	Effective Date/Time
PARAM("RLC")	Response Level Code

MFE—Master File Entry

PARAM("RLEC")	Record-Level Event Code
PARAM("MFNCID")	MFN Control ID
PARAM("MFEEDT")	Effective Date/Time
PARAM("PKV")	Primary Key Value

[Z...] segment(s) parameters

PARAM("SEG",SEG)=""	HL7 segment name
PARAM("SEG",SEG,"SEQ",SEQ,FLD#)	segment sequence # and field

NOTE: *If any special processing is required, in addition to the external value passed by VA FileMan, set the FLD# node equal to a formatting function "n^$$TAG^RTN(X)".*

- *"**n**" being the component sequence number*
- *"**X**" representing the external value from VA FileMan*

$P(segment_sequence,HLCS,n)=FM_external_value.

Files involving sub-records and/or extended reference

PARAM("SEG",SEG,"SEQ",SEQ,"FILE")	See VA FileMan documentation.
PARAM("SEG",SEG,"SEQ",SEQ,"IENS")	$$GET1^DIQ() for value.
PARAM("SEG",SEG,"SEQ",SEQ,"FIELD")	of FILE, IENS, & FIELD.
PARAM("SEG",SEG,"SEQ",SEQ,"KEY")	.01 value.
PARAM("SEG",SEG,"SEQ",SEQ,"FORMAT")	format non ST data types.

NOTE: *Query group records store PARAM in the ^TMP global with the following root: ^TMP("XUMF MFS",$J,"PARAM",IEN).*

Example: MFE PKV node is ^TMP("XUMF MFS",$J,"PARAM",IEN,"PKV")

Output Parameters:

ERROR	1^Error message text.

Example:

The following example is a query (MFQ) for a group records array:

```
>D MAIN^XUMFP(4,"ALL",7,.PARAM,.ERROR)
```

Since query group records store PARAM in the ^TMP global, display the ^TMP global to see the PARAM values:

```
>D ^%G

Global ^TMP("XUMF MFS",$J
       TMP("XUMF MFS",$J
^TMP("XUMF MFS",539017563,"PARAM","DRDT") =
^TMP("XUMF MFS",539017563,"PARAM","DRT") =
^TMP("XUMF MFS",539017563,"PARAM","ENDT") =
^TMP("XUMF MFS",539017563,"PARAM","FLEC") = UPD
^TMP("XUMF MFS",539017563,"PARAM","MFAI") =
^TMP("XUMF MFS",539017563,"PARAM","MFEEDT") = 20010212110654
^TMP("XUMF MFS",539017563,"PARAM","MFI") = Z04
^TMP("XUMF MFS",539017563,"PARAM","MFIEDT") =
^TMP("XUMF MFS",539017563,"PARAM","MFNCID") =
^TMP("XUMF MFS",539017563,"PARAM","POST") = POST^XUMFP4C
^TMP("XUMF MFS",539017563,"PARAM","PRE") = PRE^XUMFP4C
^TMP("XUMF MFS",539017563,"PARAM","PROTOCOL") = 2233
^TMP("XUMF MFS",539017563,"PARAM","QDT") = 20010212110654
^TMP("XUMF MFS",539017563,"PARAM","QFC") = R
^TMP("XUMF MFS",539017563,"PARAM","QID") = Z04 ARRAY
^TMP("XUMF MFS",539017563,"PARAM","QLR") = RD~999
^TMP("XUMF MFS",539017563,"PARAM","QP") = I
^TMP("XUMF MFS",539017563,"PARAM","QRL") =
^TMP("XUMF MFS",539017563,"PARAM","RLC") = NE
^TMP("XUMF MFS",539017563,"PARAM","RLEC") = MUP
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",1,.01) = ST
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",2,99) = ST
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",3,11) = ID
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",4,13) = CE^~FACILITY TYPE~VA
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",5,100) = ST
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",6,101) = ST
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",7,.02) = ST
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",8,"DTYP") = CE^~VISN~VA
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",8,"FIELD") = 1
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",8,"FILE") = 4.014
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",8,"IENS") = 1,?+1,
```

```
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",9,"DTYP") = ST
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",9,"FIELD") = 1:99
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",9,"FILE") = 4.014
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",9,"IENS") = 2,?+1,
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",10,"DTYP") = DT
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",10,"FIELD") = .01
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",10,"FILE") = 4.999
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",11,"DTYP") = ST
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",11,"FIELD") = .06:99
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",11,"FILE") = 4.999
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",12,"DTYP") = DT
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",12,"FIELD") = .01
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",12,"FILE") = 4.999
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",13,"DTYP") = ST
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",13,"FIELD") = .05:99
^TMP("XUMF MFS",539017563,"PARAM","SEG","ZIN","SEQ",13,"FILE") = 4.999
^TMP("XUMF MFS",539017563,"PARAM","SEGMENT") = ZIN
^TMP("XUMF MFS",539017563,"PARAM","WDCVQ") =
^TMP("XUMF MFS",539017563,"PARAM","WDDC") = INFRASTRUCTURE~INFORMATION INFRASTRUCTURE ~VA TS
^TMP("XUMF MFS",539017563,"PARAM","WHAT") = 4~IFN~VA FM
^TMP("XUMF MFS",539017563,"PARAM","WHO") = ALL~~~~~~~~D~045A4
```

MAIN^XUMFI—MASTER FILE MESSAGE BUILDER API

Description:

This API implements an HL7 Master File Message Builder Interface that dynamically maps a VA FileMan field to an HL7 Master File sequence within a segment. The interface implements functionality to build Master File Notification (MFN), Master File Query (MFQ), and Master File Response (MFR) segments. The interface calls applicable **V*IST*A** HL7 GENERATE and GENACK interfaces to send/reply/broadcast an appropriate HL7 Master File message.

Format:

```
MAIN^XUMFI(IFN,IEN,TYPE,PARAM,ERROR)
```

Input/Output Parameters:

NOTE: *For a description of the Input and Output parameters for this API, please refer to the "MAIN^XUMFP—Master File Parameter API" topic discussed previously in this chapter.*

Details:

This interface should be called after the Master File Parameter API. The Master File Parameter API sets up the required parameters in the PARAM array.

The Institution File Redesign (IFR) patch (i.e., XU*8.0*206) implements several new Application Programmer Interfaces (APIs). After the IFR patch has been installed and the Cleanup performed, the STATION NUMBER field (#99) will be a unique key to the INSTITUTION file (#4).

Example:

```
>D MAIN^XUMFI(4,18723,1,.PARAM,.ERROR)
```

From the HL7 MESSAGE TEXT FILE, you would see the following:

```
DATE/TIME ENTERED: JAN 12, 2001@09:17:29
  SERVER APPLICATION: XUMF MFN          TRANSMISSION TYPE: OUTGOING
  MESSAGE ID: 0259                      PARENT MESSAGE: JAN 12, 2001@09:17:29
  PRIORITY: DEFERRED                    RELATED EVENT PROTOCOL: XUMF MFN
  MESSAGE TYPE: SINGLE MESSAGE
 MESSAGE TEXT:
 MFI^Z04^MFS^REP^20010112091729^20010112091729^NE
 MFE^MUP^^19001011^631GD~STATION NUMBER~D
 ZIN^GREENFIELD^631GD^National^CBOC~FACILITY TYPE~VA^^^MASSACHUSETTS^^^^^^
  STATUS: SUCCESSFULLY COMPLETED
  DATE/TIME PROCESSED: JAN 12, 2001@09:17:29
  NO. OF CHARACTERS IN MESSAGE: 161     NO. OF EVENTS IN MESSAGE: 1
```

Chapter 3— Technical Manual Information

This is the Technical Manual section of this supplemental documentation for the Institution File Redesign (IFR) patch (i.e., XU*8.0*206). It will be incorporated into the "Kernel V.8.0 Technical Manual" at a later date.

The intended audience for this chapter is Information Resource Management (IRM). However, it can also be helpful to others in Technical Service, the Program Office, National **V*ISTA*** Support (NVS), and **V*ISTA*** Data Systems and Integration (VDSI).

Implementation and Maintenance

The Institution File Redesign (IFR) patch (i.e., XU*8.0*206) is a Kernel Installation and Distribution System (KIDS) software release.

Implementation

INSTALLATION INSTRUCTIONS

IFR Patch XU*8.0*1216 can be installed at anytime. The installation time should not take more than two minutes. The actual cleanup of the local site's INSTALLATION file (#4), using the List Manager utilities, will take additional time.

NOTE: *For specific package requirements and the minimum **VISTA** packages and patches that are required with the IFR Patch XU*8.0*206, please refer to the "Package Requirements" topic under the "External Relations" topic that follows in this chapter.*

Since the INSTITUTION file is a standard file referenced by many packages, it is recommended to perform the cleanup with as few users on the system as possible; this includes when running the Auto update with national data (AUTO) and Delete local/dup. station # (DSTA) List Manager actions. The other actions (lists) can be run at any time. Resolving any duplicate entries is interactive and will vary from site to site. The Auto update with national data (AUTO) List Manager action should take from 5 to 10 minutes.

NOTE: *The cleanup code queries the Master File Server (MFS) on FORUM to get a copy of the Institution Master File (IMF). The **VISTA** HL7 package checks whether a message is intended for production or training. The FORUM server's HL7 site parameter is set to "production," so attempting to install this patch in a test account with the site parameter set to "training" will result in a response message containing an "Application Reject" due to "Processing ID Mismatch with Site Parameters."*

Before installing the patch, make copies of the INSTITUTION (#4) and FACILITY TYPE (#4.1) files.

To save copies of the INSTITUTION and FACILITY TYPE files for backup purposes do the following:

- **DSM—**Use ^%GTO
- **Caché—**Use %GO)

The following is an example:

```
VAH>D ^%GTO

This routine saves globals to be restored by %GTI

Output Device ?  > DIC4.GBL

    Header comment... INSTITUTION (#4) file backup
    global(s) ? > ^DIC(4
    global(s) ? > ^DIC(4.1
    global(s) ? > ^

    Global(s) Selected:
       ^DIC(4)

    Output started for ^DIC at 8:19:50 AM

    Global transfer finished at 8:19:51 AM

VAH>
```

Figure 1: Sample backup of the INSTALLATION and FACILITY TYPE files at a DSM site

To restore the backup copy in the event of some unforeseen problem (e.g., the site decides they need to back out of the cleanup process), the site may do the following:

1.) KILL ^DIC(4),^DIC(4.1

2.) Depending on your operating system do one of the following:

- **DSM—**DO ^%GTI
- **Caché—**DO ^%GI

This will restore the data to its original state.

The Installation process includes the following steps/tips:

1.) Users **ARE** allowed to be on the system during the installation.

2.) **DSM/AXP Sites—**The IFR patch routines are not usually mapped, so you will probably *not* have to disable mapping.

3.) You **DO NOT** need to stop TaskMan **OR** the background filers.

4.) Use the INSTALL/CHECK MESSAGE option on the PackMan menu to load the patch into a Transport Global onto your system.

5.) On the KIDS menu [XPD MAIN], select the Installation menu [XPD INSTALLATION MENU] and use the following options to install the Transport Global:

```
Verify Checksums in Transport Global
Print Transport Global
Compare Transport Global to Current System
Backup a Transport Global

Install Package(s)

INSTALL NAME: XU*8.0*206

Want KIDS to INHIBIT LOGONs during the install?  NO

Want to DISABLE Scheduled Options, Menu Options, and Protocols?  NO
```

Figure 2: Sample installation of a KIDS transport global at a site

6.) **DSM/AXP Sites—**Answer "**NO**" to the question "Want to MOVE routines to other CPUs?"

7.) **DELETE** the following routines:

- **XUMFPOST—**Post-init routine.
- **XUMFENV—**Environment check routine.

DO *NOT* delete any other XUMF* routines!

8.) Add members to the XUMF INSTITUTION mail group whom should be notified of any new Station Numbers added to the INSTITUTION file (e.g., IRM, PIMS ADPACs, etc).

NOTE: *For more information on this mail group, please refer to the "Mail Groups" topic under the "Software Product Security" topic that follows in this chapter.*

9.) Add members to the XUMF SERVER mail group whom should be notified of any server bulletins. These bulletins can include error messages related to the server mechanism (MFS) and may require intervention by IRM.

NOTE: *For more information on this mail group, please refer to the "Mail Groups" topic under the "Software Product Security" topic that follows in this chapter.*

POST INSTALLATION INSTRUCTIONS

1.) (Optional) Add the Institution File Query / Update option [XUMF INSTITUTION] to the Kernel Management Menu [XUKERNEL].

2.) After installing IFR Patch XU*8.0*206 you should perform the Installation File Cleanup. To run the Cleanup, select the Institution File Query / Update option in the Kernel Management Menu.

NOTE: *For a complete description of the Institution File Cleanup, please refer to the "Institution File Cleanup Process" topic in "Appendix B—Local Site IMF Administrator(s) Duties" in this manual.*

MEMORY CONSTRAINTS

There are no special memory constraints, other than sites having sufficient space to allow for normal global growth.

SPECIAL OPERATIONS

There are no special operations required other than the normal backup and recovery operations.

Maintenance

BULLETINS

The IFR Patch XW*8.0*206 Master File Server (MFS) generates the following Bulletins (listed alphabetically):

BULLETIN	DESCRIPTION
XUMF ERROR	This bulletin is an error message that is generated, if an error occurs on the Master File Server (MFS).
XUMF INSTITUTION	This bulletin is an update notification message that is generated at a site (client) when the local site's INSTITUTION file (#4) has been automatically updated with national entries from the Institution Master File (IMF) via the Master File Server (MFS).

Table 1: MFS bulletins associated with the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

NOTE: *For information regarding mail groups, please refer to the "Mail Groups" topic in the "Software Product Security" topic that follows in this chapter.*

HL7 APPLICATION PARAMETERS

The IFR Patch XW*8.0*206 Master File Server (MFS) uses the following HL7 Application Parameters (listed alphabetically):

HL7 APPLICATION PARAMETERS	DESCRIPTION
XUMF MFK	Master File Application ACK.
XUMF MFN	Master File Notification.
XUMF MFQ	Master File Query.
XUMF MFR	Master File Response.

Table 2: MFS HL7 application parameters associated with the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

HL7 LOGICAL LINK

The IFR Patch XW*8.0*206 Master File Server (MFS) uses the following HL7 Logical Link:

HL7 LOGICAL LINK	DESCRIPTION
XUMF FORUM	The HL7 LOGICAL LINK (#870) to the Master File Server.

Table 3: MFS HL7 logical link associated with the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

NOTE: *The link does not need to be started via the Start logical Links option due to its being a real-time link.*

PROTOCOLS

The IFR Patch XW*8.0*206 Master File Server (MFS) uses the following protocols (listed alphabetically):

MFS PROTOCOL	DESCRIPTION
XUMF MFK	Master File Application ACK.
XUMF MFN	Master File Notification.
XUMF MFQ	Master File Query.
XUMF MFR	Master File Response.

Table 4: MFS protocols associated with the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

The IFR Patch XW*8.0*206 Cleanup process of the local site's INSTITUTION file (#4) uses the following protocols (listed alphabetically):

CLEANUP PROTOCOL	DESCRIPTION
XUMF AUTO	Auto update with national data.
XUMF CHCK	Required clean up actions.
XUMF DSTA	Delete local/dup. station #.
XUMF LLCL	List local data.
XUMF NAME	Names INSTITUTION vs. national.
XUMF NATL	List national data to merge.
XUMF RDSN	Resolve duplicate station numbers.
XUMF RDSN MENU	Duplicate station number menu.

Table 5: Cleanup protocols associated with the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

TEMPLATES

The IFR Patch XW*8.0*206 Cleanup process of the local site's INSTITUTION file (#4) uses the following list templates (listed alphabetically):

LIST TEMPLATE	DESCRIPTION
XUMF CHCK	Required clean up actions.
XUMF DSTA	Delete local/dup. station #.
XUMF LLCL	List local data.
XUMF NAME	Names INSTITUTION vs. national.
XUMF NATL	List national data to merge.

Table 6: Cleanup list templates associated with the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

Routines

This section provides information related to all executable XU* routines exported with the Institution File Redesign (IFR) patch (i.e., XU*8.0*206). Do *not* delete any XU* routines.

All IFR Patch XU*8.0*206 routines are prefixed with the namespace XU. IFR Patch XU*8.0*206 is composed of and exports 13 executable routines.

The second line of these routines looks like:

```
<tab>;;8.0;KERNEL;<XU*8*206>;Jul 10, 1995
```

NOTE: *Other routine information, such as the Routine Size Histogram, the Routine %Index, etc., can be generated through the use of Kernel Utilities.*

ROUTINE	DESCRIPTION
XUAF4	Institution File Access (APIs)
XUMF4	Institution File Cleanup—Main.
XUMF4A	Institution File Cleanup—Auto.
XUMF4F	Institution Master File Edit
XUMF4H	Institution File Cleanup—Help.
XUMFENV	Environment check.
XUMFH	Master File Hl7 Message Handler.
XUMFI	Master File Interface.
XUMFP	Master File C/S Parameters.
XUMFP4	Master File C/S Params INSTITUTION.
XUMFP4C	Master File C/S Params INSTITUTION (continued).
XUMFPFT	Master File C/S Param FACILITY TYPE.
XUMFPOST	Post-INIT routine that deletes the old field identifiers.

Table 7: List of routines exported with the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

File List

This section contains information on all Institution File Redesign (IFR) patch (i.e., XU*8.0*206)-related files and globals. This information includes: file numbers, file names, global location, data with file indicator, and file descriptions. IFR Patch XU*8.0*206 file numbers range from 4 to 4.1.

NOTE: *File security access is described in the "File Security" topic in the "Software Product Security" section that follows in this chapter.*

Other pertinent file information, such as data dictionaries and relations with other files, can be generated online through the use of VA FileMan utilities.

VISTA FILE NAME & FILE NUMBER	**GLOBAL LOCATION**	**DATA W/ FILE?**	**DESCRIPTION**
INSTITUTION (#4)	^DIC(4,	No	This file contains a listing of VA institutions. It is cross-referenced by STATION NUMBER and NAME. The NUMBER field is no longer meaningful (it had previously referenced the STATION NUMBER).
FACILITY TYPE (#4.1)	^DIC(4.1,	No	The INSTITUTION file (#4) points to this file. It contains a list of facility codes that were previously stored in the VA TYPE CODE field of the INSTITUTION file. This file is exported with data, and the new data should overwrite the old. It is cross-referenced by NAME and FULL NAME.

Table 8: List of files used by the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

Exported Options

Options—Without Parents

The following options are not assigned to any menu when the Institution File Redesign (IFR) software is exported. They can be assigned to a menu at the discretion of the System Manager at a site, if appropriate:

OPTION NAME	OPTION TITLE	DESCRIPTION
XUMF FORUM INSTITUTION	Institution Master File Edit	This option is only available on FORUM. It is locked with the XUMF INSTITUTION security key. This option is used to update entries in the FORUM Institution Master File (IMF).
XUMF INSTITUTION	Institution File Query / Update	This option is available on FORUM and at the sites. This option is used to update entries in the local site's INSTITUTION file.

Table 9: Menu options exported with the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

NOTE: *You can optionally attach these options to the Kernel Management Menu [XUKERNEL].*

Archiving and Purging

There are no application-specific archiving procedures or recommendations for the Institution File Redesign (IFR) patch (i.e., XU*8.0*206).

Callable Routines

This topic lists all the APIs exported with the Institution File Redesign (IFR) patch (i.e., XU*8.0*206).

Every callable entry point is described in Chapter 2, "Programmer Manual Information," in this manual. Please refer to the indicated chapter under "For More Information" for more details about the calls in this documentation.

ENTRY POINT	BRIEF DESCRIPTION	FOR MORE INFORMATION
$$IEN^XUAF4(STA)	This function returns the INSTITUTION file IEN for a given Station Number.	See the "$$IEN^XUAF4—Return IEN API" topic in Chapter 2 in this manual.
$$O99^XUAF4(IEN)	If this entry was merged due to a duplicate Station Number, this function returns a pointer to the new Station Number INSTITUTION file IEN.	See the "$$O99^XUAF4—Merged Duplicates Function API" topic in Chapter 2 in this manual.
$$RF^XUAF4(IEN)	This function returns the realigned from "IEN^station number^date" for a given INSTITUTION file IEN.	See the "$$RF^XUAF4—Realigned From Function API" topic in Chapter 2 in this manual.
$$RT^XUAF4(IEN)	This function returns the realigned to "IEN^station number^date" for a given INSTITUTION file IEN.	See the "$$RT^XUAF4—Realigned To Function API" topic in Chapter 2 in this manual.
$$STA^XUAF4(IEN)	This function returns the Station Number for a given INSTITUTION file IEN.	See the "$$STA^XUAF4—Return Station Number Function API" topic in Chapter 2 in this manual.

ENTRY POINT	BRIEF DESCRIPTION	FOR MORE INFORMATION
$$TF^XUAF4(IEN)	This function determines if this is an active treating facility for a given INSTITUTION file IEN.	See the "$$TF^XUAF4—Treating Facility Function API" topic in Chapter 2 in this manual.
F4^XUAF4(STA,ARRAY,FLAG,DATE)	INSTITUTION file multipurpose API.	See the "F4^XUFA4—Multipurpose API" topic in Chapter 2 in this manual.
MAIN^XUMFI(IFN,IEN,TYPE,PARAM,ERROR)	This API implements an HL7 Master File Message Builder Interface that dynamically maps a VA FileMan field to an HL7 Master File sequence within a segment.	See the "MAIN^XUMFI—Master File Message Builder API" topic in Chapter 2 in this manual.
MAIN^XUMFP(IFN,IEN,TYPE,PARAM,ERROR)	This API sets up required parameters used by the HL7 Master File Message Builder Interface and the HL7 Master File message handler.	See the "MAIN^XUMFP—Master File Parameter API" topic in Chapter 2 in this manual.

Table 10: Callable routines for the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)—Alphabetized by entry point

External Interfaces

Hardware Interfaces

The INSTITUTION file (#4) and FACILITY TYPE file (#4.1) components will continue to function on the standard hardware platforms employed by Department of Veterans Affairs healthcare facilities. These systems consist of Alpha AXP (running DSM) or Alpha/NT (running OpenM).

Software Interfaces

The INSTITUTION (#4) and FACILITY TYPE (#4.1) files, as well as other master files, are integral components of **V***IST***A** and are referenced by numerous packages. An HL7 (**V***IST***A** Messaging) interface specification for interaction with the Master File Server (MFS) has been defined with IFR Patch XU*8.0*206.

The MFS and **V***IST***A**'s HL7 software provides the following functionality:

- **Broadcast Updates—**Implements a server mechanism to broadcast FORUM's Institution Master File (IMF) updates VHA-wide.
- **Handle Update Message—**Implements a message handler to update the site's local INSTITUTION file (#4).
- **Query Server—**Provides functionality to query FORUM's Institution Master File and Facility Type Master File.
- **Handle Query Response—**Provides functionality to handle query responses.
- **Track Station Number Changes—**Track Station Number changes in the INSTITUTION file (#4) via bulletins/E-mail messages and the **V***IST***A** HL7 software.
- **Application Programmer Interfaces (APIs)—**Provides Application Programmer Interfaces (APIs) to set up required parameters to build and send HL7 messages.

  NOTE: *For more information on the APIs, please refer to the "Application Programmer Interfaces (APIs)" topic in Chapter 2, "Programmer Manual Information," in this manual.*

NOTE: *For more information on the Master File Server (MFS), please refer to the "Master File Server (MFS)" topic in Chapter 1, "User Manual Information," in this manual.*

NOTE: *For a list of HL7 Application Parameters, HL7 Logical Link, and Master File Server Protocols associated with IFR Patch XU*8.0*206, please refer to the "Maintenance" topic under the "Implementation and Maintenance" topic described previously in this chapter.*

Communications Interfaces

V*IST***A**'s VA MailMan and HL7 (**V***IST***A** Messaging) package, utilizing bi-directional data transmission of HL7 messages over TCP/IP, provides support for communication between the VHA site (client) and FORUM (server) applications.

A new mail group in MailMan will be created to receive bulletins regarding updates to the INSTITUTION file (#4). Sites will be responsible for populating this mail group with the appropriate personnel (e.g., IRM Chief, ADPAC, etc.).

NOTE: *For more information on the mail groups exported with IFR Patch XU*8.0*206, please refer to the "Mail Groups" topic under the "Software Product Security" topic that follows in this chapter.*

NOTE: *For a list of Bulletins associated with IFR Patch XU*8.0*206, please refer to the "Bulletins" topic under the "Implementation and Maintenance" topic described previously in this chapter.*

External Relations

Package Requirements

IFR Patch XU*8.0*206 requires a standard **V*IST*A** operating environment in order to function correctly. Check your **V*IST*A** environment for packages and versions installed.

The minimum **V*IST*A** packages and patches that are required are listed as follows by:

1. **V*IST*A** package and current version number.
2. Associated patch designation(s) that need(s) to be installed in addition to the **V*IST*A** package.
3. Brief description of the associated patch.

V*IST*A PACKAGE AND VERSION	**ASSOCIATED PATCH DESIGNATION(S)**	**BRIEF PATCH DESCRIPTION**
Automated Med Info Exchange, V. 2.7	DVBA*2.7*32	User Station Number Check.
Kernel, V. 8.0	XU*8*43	CIRN Institution file update—This patch is in support of MPI/PD (i.e. CIRN). It will add fields to the INSTITUTION file (#4), an entry to the FACILITY TYPE file (#4.1), and add new INSTITUTION file associations.
	XU*8*112	NOIS fixes and API's—XUAF4 routine fixed in the $$LKUP API.
Master Patient Index Vista, V. 1.0	MPIF*1*16	CIRN Master of Record (CMOR) Not Updating. ***NOTE:*** MPIF and RG patches should NOT be installed in Legacy systems to avoid issues with the legacy systems ending up as CMORs, Treating Facilities or Subscribers.
Registration, V. 5.3	DG*5.3*357	RAI MDS Institution Name Changing Problem.
Remote Order/Entry System, V. 2.0	RMPF*2*16	ROES Facility Lookup Fix/Message Addressing/Print Problem.

Table 11: Associated patches required for installation prior to installing the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

The Institution File Redesign (IFR) patch (i.e., XU*8.0*206) requires a standard **V*IST*A** operating environment in order to function correctly. Check your **V*IST*A** environment for packages and versions installed.

Dependencies

IFR Patch XU*8.0*206 provides a common set of APIs for standardizing and retrieving Institution time-sensitive (historical) information.

NOTE: *For more information on the APIs associated with the IFR patch, please refer to the "Application Programmer Interfaces (APIs)" topic in Chapter 2, "Programmer Manual Information," in this manual.*

Integration Agreements (IA)

SUPPORTED REFERENCES

These are the Kernel Supported Reference Integration Agreements (IAs) for Institution File Redesign (IFR) Patch XU*8.0*206. Supported Reference APIs are open for use by any **V*IST*A** application as defined by the IA. They have been recorded as a Supported Reference in the IA database on FORUM. It is not required that **V*IST*A** packages request an IA to use them.

The Supported Integration Agreements (IAs) are listed alphabetically by Entry Point below:

ENTRY POINT OR GLOBAL ROOT	IA #	TYPE	NAME
$$IEN^XUAF4	#2171	Routine	Return IEN API.
$$O99^XUAF4	#2171	Routine	Merged Duplicates Function API.
$$RF^XUAF4	#2171	Routine	Realigned From Function API.
$$RT^XUAF4	#2171	Routine	Realigned To Function API.
$$STA^XUAF4	#2171	Routine	Return STATION NUMBER API.
$$TF^XUAF4	#2171	Routine	Treating Facility Function API.
F4^XUFA4	#2171	Routine	Multipurpose API.

Table 12: Supported references for the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)—Alphabetized by entry point

NOTE: *For more information on the APIs associated with the IFR patch, please refer to the "Application Programmer Interfaces (APIs)" topic in Chapter 2, "Programmer Manual Information," in this manual.*

CONTROLLED SUBSCRIPTION REFERENCES

These are the Kernel Controlled Subscription Integration Agreements for Institution File Redesign (IFR) Patch XU*8.0*206. They contain attributes/functions that *must* be controlled in their use. They have been recorded as a Controlled subscription Reference in the IA database on FORUM. Permission to use them is granted by the custodian package (i.e., Kernel) on a one-by-one basis.

The Controlled Subscription Integration Agreements (IAs) are listed alphabetically by Entry Point below:

ENTRY POINT OR GLOBAL ROOT	IA #	TYPE	NAME
MAIN^XUMFI	#3354	Routine	Master File Message Builder API.
MAIN^XUMFP	#3354	Routine	Master File Parameter API.

Table 13: Controlled subscription references for the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)—Alphabetized by entry point

NOTE: *For more information on the APIs associated with the IFR patch, please refer to the "Application Programmer Interfaces (APIs)" topic in Chapter 2, "Programmer Manual Information," in this manual.*

GENERAL INSTRUCTIONS FOR OBTAINING INTEGRATION AGREEMENTS

To obtain the current list of active IAs of which Kernel, which includes Institution File Redesign (IFR), is a custodian:

1.) Sign on to the **FORUM** system.

2.) Select the **DBA menu [DBA]**.

3.) Select the **Integration Agreements Menu [DBA IA ISC]**.

4.) Select the **Custodial Package Menu [DBA IA CUSTODIAL MENU]**.

5.) Choose the **ACTIVE by Custodial Package option [DBA IA CUSTODIAL]**.

6.) Enter **KERNEL** at the "Select PACKAGE NAME:" prompt. You may have to further refine your choice, if presented with a list of similar named packages.

7.) Choose the device to display the list of IAs.

8.) All current active IAs for which the Kernel package is custodian are listed.

To obtain detailed information on a specific integration agreement:

1.) Sign on to the **FORUM** system.

2.) Select the **DBA menu [DBA]**.

3.) Select the **Integration Agreements Menu [DBA IA ISC]**.

4.) Choose the **Inquire option [DBA IA INQUIRY]**.

5.) Enter the **integration agreement number of the IA you would like to display** (e.g., DBIA2171) at the "Select INTEGRATION REFERENCES:" prompt.

6.) Choose the device to display the list of IA.

7.) The full text of the requested IA will be displayed.

To obtain the current list of IAs that Kernel, which includes Institution File Redesign (IFR), is a subscriber to:

1.) Sign on to the **FORUM** system.

2.) Select the **DBA menu [DBA]**.

3.) Select the **Integration Agreements Menu [DBA IA ISC]**.

4.) Select the **Subscriber Package Menu [DBA IA SUBSCRIBER MENU]**.

5.) Choose the **Print ACTIVE by Subscribing Package option [DBA IA SUBSCRIBER].**

6.) Enter **KERNEL** (in uppercase) at the "START WITH SUBSCRIBING PACKAGE: FIRST//" prompt.

7.) Enter **KERNEL** (in uppercase) at the "GO TO SUBSCRIBING PACKAGE: LAST//" prompt.

8.) Choose the device to display the list of IAs.

9.) All current active IAs to which the Kernel package is a subscriber are listed.

Internal Relations

The following options are exported with IFR Patch XU*8.0*206:

- Institution Master File Edit option [XUMF FORUM INSTITUTION]
- Institution File Query / Update option [INSTITUTION FILE QUERY / UPDAT XUMF INSTITUTION]

The following option is associated with the Institution File Redesign patch, however, it is not exported with nor modified by the IFR Patch XU*8.0*206:

- Institution Edit option [XU-INSTITUTION-E]

Also, the following List Manager actions are exported with IFR Patch XU*8.0*206:

- **LLCL—**List local station numbers.
- **NATL—**List national data to merge.
- **DSTA—**Delete local/dup. station #.
- **RDSN—**Resolve duplicate station numbers.
- **AUTO—**Auto update with national data.
- **CHCK—**Required clean up actions.

NOTE: *For the minimum VISTA packages and patches required before installing IFR Patch XU*8.0*206, please refer to the "Implementation and Maintenance" topic in Chapter 3, "," in this manual.*

Namespace

The Institution File Redesign (IFR) Patch (i.e., XU*8.0*206) uses Kernel's **XU** namespace. All routines and globals used in the IFR patch begin with **XUMF**.

File Numbers

IFR Patch XU*8.0*206 file numbers and global locations are listed as follows:

File #	Global
4	^DIC(4,
4.1	^DIC(4.1,

Table 14: File and global information for the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

The full Data Dictionaries for the INSTITUTION (#4) and the FACILITY TYPE (#4.1) files are being exported with IFR Patch XU*8.0*206. The new field and changed field definitions will be transported in the KIDS transport global and installed at the site.

NOTE: *For specific information on added, modified, and deleted fields, please refer to the "INSTITUTION File Data Dictionary Modifications" and "FACILITY TYPE File Data Dictionary Modifications" topics in Chapter 2, "Programmer Manual Information," in this manual.*

Package-wide Variables

There are no package-wide variables contained within the Institution File Redesign (IFR) patch (i.e., XU*8.0*206).

Software Product Security

The Institution Master File (IMF) and Facility Type Master File (FMF) will only be accessible on FORUM. All FORUM security protocols will be followed.

- Only *national* entries are stored in the Institution Master File (IMF) and Facility Type Master File (FMF) on FORUM.
- Updates to the *national* entries in the IMF (i.e., INSTITUITION file [#4]) on FORUM can only be made with the Institution Master File Edit [XUMF FORUM INSTITUTION] option, which will only be available on FORUM.
- The XUMF FORUM INSTITUTION option will be locked with the XUMF INSTITUTION security key. The FORUM Institution Master File Administrator(s) will be the only person(s) to hold this security key.

Mail Groups

The following mail group is exported with IFR Patch XU*8.0*206:

MAIL GROUP	DESCRIPTION
XUMF INSTITUTION	The XUMF INSTITUTION mail group will receive bulletins sent via **V***IST***A**'s MailMan software regarding updates to the site's INSTITUTION file (#4). The mail group at the site will be notified when their local INSTITUTION file (#4) has been automatically updated with *national* entries from the Institution Master File (IMF) on FORUM via the Master File Server (MFS). The Local Site Institution Master File Administrator(s) will be responsible for populating (i.e., Mail Group Coordinator), maintaining, and monitoring this mail group. The mail group should be populated with the appropriate personnel whom are to be notified of any add/edits to national entries in the local site's INSTITUTION file (e.g., Local Site Institution Master File Administrator[s], IRM Chief, ADPAC[s], etc.).
XUMF SERVER	The XUMF SERVER mail group receives Master File Server (MFS)-related messages (on FORUM and at the site). The Local Site Institution Master File Administrator(s) will be responsible for populating (i.e., Mail Group Coordinator), maintaining, and monitoring this mail group. The mail group should be populated with the appropriate personnel whom are to be notified of any general server-related messages (e.g., errors).

Table 15: Mail groups exported with the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

NOTE: *For information regarding bulletins, please refer to the "Bulletins" topic in the "Implementation and Maintenance" topic previously described in this chapter.*

Remote System(s)

IFR Patch XU*8.0*206 use the Master File Server (MFS) to automatically transmit national INSTITUTION file data to update the INSTITUTION file (#4) located at all sites VHA-wide.

An HL7 (**V***IST***A** Messaging) interface specification for interaction with the Master File Server (MFS) has been defined. **V***IST***A**'s VA MailMan and HL7 (**V***IST***A** Messaging) software, utilizing bi-directional data transmission of HL7 messages over TCP/IP, provides support for communication between the FORUM (server) and VHA site (client) applications. The anticipated frequency for data transmission is approximately two to eight times per month. The data transmitted will not be encrypted.

Archiving and Purging

There are no package-specific archiving and purging procedures or recommendations for IFR Patch XU*8.0*206.

Interfacing

There are no specialized non-VA products (hardware and/or software) embedded within or required by IFR Patch XU*8.0*206. However, this patch uses **V***IST***A**'s HL7 and MailMan software to transmit data and mail messages.

Electronic Signature(s)

There are no electronic signatures used in IFR Patch XU*8.0*206.

Menu(s)/Option(s)

The following options are exported with IFR Patch XU*8.0*206:

OPTION NAME	OPTION TITLE	DESCRIPTION
XUMF FORUM INSTITUTION	Institution Master File Edit	This option is only available on FORUM. It is locked with the XUMF INSTITUTION security key. This option is used to update entries in the FORUM Institution Master File (IMF).
XUMF INSTITUTION	Institution File Query / Update	This option is available on FORUM and at the sites. This option is used to update entries in the local site's INSTITUTION file (#4).

Table 16: Menu options exported with the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

Security Key(s)

The following security key is exported with IFR Patch XU*8.0*206:

SECURITY KEY	DESCRIPTION
XUMF INSTITUTION	The XUMF INSTITUTION security key is exported with IFR Patch XU*8.0*206. The XUMF FORUM INSTITUTION option exported with Patch XU*8.0*206 will be locked with this security key. The FORUM Institution Master File Administrator(s) will be the only person(s) to hold this security key.

Table 17: Security keys exported with the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

File Security

The following file security is established with IFR Patch XU*8.0*206:

FILE #	FILE NAME	DD	RD	WR	DEL	LAYGO	AUDIT
4	INSTITUTION	#	--	--	#	--	--
4.1	FACILITY TYPE	--	--	--	--	--	--

Table 18: File security for the Institution File Redesign (IFR) patch (i.e., XU*8.0*206)

References

The following directive specifies Station Number distribution requirements with regards to the IMF file updates associated with the IFR Patch XU*8.0*206:

> Per VHA DIRECTIVE 97-058, which provides guidance for the assignment of Station Number suffix identifiers for outpatient clinic facilities, all outpatient clinic facilities will be given a Station Number suffix identifier. Requests to add or delete an outpatient clinic are submitted to the Director, Information Management Service (045A4) through the Chief Network Office (10N) at VHA Headquarters. The Network Management Support Office (10NA) notifies the respective VISN of approved Station Number suffix identifier.

NOTE: *For further reference information, please refer to "Appendix A—Reference Material" near the end of this manual.*

Official Policies

No additional legal requirements are imposed by the IFR Patch XU*8.0*206 on **V***IST***A** users, nor does the IFR Patch XU*8.0*206 relieve users of any previously established requirements.

Distribution of the Institution File Redesign software (i.e., Patch IFR XU*8.0*206) is unrestricted.

Glossary

ADPAC	**A**utomated **D**ata **P**rocessing **A**pplication **C**oordinator.
APPLICATION PACKAGE	In **V***IST***A**, software and documentation that support the automation of a service, such as Laboratory or Pharmacy within VA medical centers (see Package).
APPLICATION PROGRAMMING INTERFACE (API)	Programmer calls provided for use by application programmers. APIs allow programmers to carry out standard computing activities without needing to duplicate utilities in their own packages. APIs also further DBA goals of system integration by channeling activities, such as adding new users, through a limited number of callable entry points.
ARRAY	An arrangement of elements in one or more dimensions. An M array is a set of nodes referenced by subscripts that share the same variable name.
BULLETINS	Electronic mail messages that are automatically delivered by **V***IST***A** MailMan under certain conditions. For example, a bulletin can be set up to "fire" when database changes occur, such as adding a new Institution in the INSTITUTION file (#4). Bulletins are fired by bulletin-type cross-references.
CALLABLE ENTRY POINT	Authorized programmer call that may be used in any **V***IST***A** application package. The DBA maintains the list of DBIC-approved entry points.
CIRN	**C**linical **I**nformation **R**esource **N**etwork.
CONTROLLED SUBSCRIPTION INTEGRATION AGREEMENT	This applies where the IA describes attributes/functions that must be controlled in their use. The decision to restrict the IA is based on the maturity of the custodian package. Typically, these IAs are created by the requesting package based on their independent examination of the custodian package's features. For the IA to be approved, the custodian grants permission to other **V***IST***A** packages to use the attributes/functions of the IA; permission is granted on a one-by-one basis where each is based on a solicitation by the requesting package. An example is the extension of permission to allow a package (e.g., Spinal Cord Dysfunction) to define and update a component that is supported within the Health Summary package file structures.
CROSS REFERENCE	There are several types of cross-references available. Most generally, a VA FileMan cross-reference specifies that some action be performed when the field's value is entered, changed, or deleted. For several types of cross-references, the action consists of putting the value into a list; an index used when looking-up an entry or when sorting. The regular cross-reference is used for sorting and for lookup; you can limit it to sorting only.

DATA	A representation of facts, concepts, or instructions in a formalized manner for communication, interpretation, or processing by humans or by automatic means. The information you enter for the computer to store and retrieve. Characters that are stored in the computer system as the values of local or global variables. VA FileMan fields hold data values for file entries.
DATA DICTIONARY (DD)	The **D**ata **D**ictionary is a global containing a description of what kind of data is stored in the global corresponding to a particular file. VA FileMan uses the data internally for interpreting and processing files. A Data Dictionary contains the definitions of a file's elements (fields or data attributes); relationship to other files; and structure or design. Users generally review the definitions of a file's elements or data attributes; programmers review the definitions of a file's internal structure.
DBA	**D**ata**b**ase **A**dministrator, oversees package development with respect to **V***IST***A** Standards and Conventions (SAC) such as namespacing. Also, this term refers to the Database Administration function and staff.
DBIA	**D**ata**b**ase **I**ntegration **A**greement, a formal understanding between two or more **V***IST***A** packages, which describes how data is shared or how packages interact. The DBA maintains a list of DBIAs.
DEFAULT	Response the computer considers the most probable answer to the prompt being given. It is identified by double slash marks (//) immediately following it. This allows you the option of accepting the default answer or entering your own answer. To accept the default you simply press the Enter (or Return) key. To change the default answer, type in your response.
DELIMITER	Special character used to separate a field, record, or string. VA FileMan uses the ^ character as the delimiter within strings.
DHCP	**D**ecentralized **H**ospital **C**omputer **P**rogram now known as Veterans Health Information Systems and Technology Architecture (**V***IST***A**).
DIRECT MODE UTILITY	A programmer call that is made when working in direct programmer mode. A direct mode utility is entered at the MUMPS prompt (e.g., >D ^XUP). Calls that are documented as direct mode utilities *cannot* be used in application package code.
ELECTRONIC SIGNATURE CODE	Secret password that some users may need to establish in order to sign documents via the computer.
ENTRY	VA FileMan record. An internal entry number (IEN, the .001 field) uniquely identifies an entry in a file.

EXTRINSIC FUNCTION	Extrinsic function is an expression that accepts parameters as input and returns a value as output that can be directly assigned.
FACILITY	Geographic location at which VA business is performed.
FIELD	In a record, a specified area used for the value of a data attribute. The data specifications of each VA FileMan field are documented in the file's data dictionary. A field is similar to blanks on forms. It is preceded by words that tell you what information goes in that particular field. The blank, marked by the cursor on your terminal screen, is where you enter the information.
FILE	Set of related records treated as a unit. VA FileMan files maintain a count of the number of entries or records.
FILE MANAGER (VA FILEMAN)	The **V*IST*A**'s Database Management System (DBMS). The central component of the Kernel that defines the way standard **V*IST*A** files are structured and manipulated.
FMF	**F**acility Type **M**aster **F**ile.
FORM	Please see the Glossary entry for "ScreenMan Forms."
FORUM	The central E-mail system within **V*IST*A**. Developers use FORUM to communicate at a national level about programming and other issues. FORUM is located at the OI Field Office - Washington, DC (162-2).
FREE TEXT	A DATA TYPE that can contain any printable characters.
GLOBAL VARIABLE	Variable that is stored on disk (M usage).
HEALTH LEVEL SEVEN (HL7)	National level standard for data exchange in all healthcare environments regardless of individual computer application systems.
HEALTH LEVEL SEVEN (HL7) VISTA	Messaging system developed as a **V*IST*A** software package that follows the HL7 Standard for data exchange.
IMF	**I**nstitution **M**aster **F**ile.
INPUT TEMPLATE	A pre-defined list of fields that together comprise an editing session.
INSTITUTION	A Veterans Affairs (VA) facility assigned a number by headquarters, as defined by Directive 97-058. An entry in the INSTITUTION file (#4) that represents the Veterans Health Administration (VHA).
INSTITUTION MASTER FILE ADMINISTRATOR(S)	The person or persons responsible for the maintenance of and updates to the master files either on FORUM or at a local site.

INTEGRATION AGREEMENTS (IA) (Formerly known as DATABASE INTEGRATION AGREEMENTS [DBIA])	**I**ntegration **A**greements (IA) define an agreement between two or more **V***IST***A** packages to allow access to one development domain by another. Any package developed for use in the **V***IST***A** environment is required to adhere to this standard; as such it applies to vendor products developed within the boundaries of DBA assigned development domains (e.g., MUMPS AudioFax). An IA defines the attributes and functions that specify access. All IAs are recorded in the Integration Agreement database on FORUM. Content can be viewed using the DBA menu or the System Design & Development's web page.
INTERNAL ENTRY NUMBER (IEN)	The number used to identify an entry within a file. Every record has a unique internal entry number.
IRM	**I**nformation **R**esource **M**anagement. A service at VA medical centers responsible for computer management and system security.
KERNEL	**V***IST***A** software that function as an intermediary between the host operating system and the **V***IST***A** application packages such as Laboratory, Pharmacy, IFCAP, etc. Kernel provides a standard and consistent user and programmer interface between application packages and the underlying M implementation.
LEGACY FACILITY	An integrated facility. When two or more facilities integrate, the legacy facilities become DIVISIONS of the primary facility.
LINK	Non-specific term referring to ways in which files may be related (via pointer links). Files have links into other files.
MAILMAN	**V***IST***A** software that provides a mechanism for handling electronic communication, whether it's user-oriented mail messages, automatic firing of bulletins, or initiation of server-handled data transmissions.
MASTER FILES	A set of common reference files used by one or more applications.
MENU	List of choices for computing activity. A menu is a type of option designed to identify a series of items (other options) for presentation to the user for selection. When displayed, menu-type options are preceded by the word "Select" and followed by the word "option" as in Select Menu Management option: (the menu's select prompt).
MENU SYSTEM	The overall Menu Manager logic as it functions within the Kernel framework.
MENU TEXT	The descriptive words that appear when a list of option choices is displayed. Specifically, the Menu Text field of the OPTION file (#19). For example, User's Toolbox is the menu text of the XUSERTOOLS option. The option's synonym is TBOX.
MFN	**M**aster **F**ile **N**otification (HL7 segment).

MFQ	**M**aster **F**ile **Q**uery (HL7 segment).
MFR	**M**aster **F**ile **R**esponse (HL7 segment)
MFS	**M**aster **F**ile **S**erver.
MPI/PD	**M**aster **P**atient **I**ndex/**P**atient **D**emographics
NAMESPACING	Convention for naming **V***IST***A** package elements. The DBA assigns unique two to four character string prefix for package developers to use in naming routines, options, and other package elements so that packages may coexist. The DBA also assigns a separate range of file numbers to each package.
NDBI	**N**ational **D**ata **B**ase **I**ntegration.
NPI	**N**ational **P**rovider **I**dentifier (a.k.a. National Provider Identifier).
OPTION	An entry in the OPTION file. As an item on a menu, an option provides an opportunity for users to select it, thereby invoking the associated computing activity. Options may also be scheduled to run in the background, non-interactively, by Task Manager.
OPTION NAME	Name field in the OPTION file (e.g., XUMAINT for the option that has the menu text "Menu Management"). Options are namespaced according to **V***IST***A** conventions monitored by the DBA.
PACKAGE	The set of programs, files, documentation, help prompts, and installation procedures required for a given software application. For example, Laboratory, Pharmacy, and PIMS are packages. A **V***IST***A** software environment composed of elements specified via the PACKAGE file (#9.4). Elements include files and associated templates, namespaced routines, and namespaced file entries from the OPTION, HELP FRAME, BULLETIN, and FUNCTION files. As public domain software, packages may be requested through the Freedom of Information Act (FOIA).
PARENT FACILITY	A station that has one or more facilities under the auspices of its director.
POINTER	The address at which a data value is stored in computer memory. A relationship between two VA FileMan files, a pointer is a file entry that references another file (forward or backward). Pointers can be an efficient means for applications to access data by referring to the storage location at which the data exists.

PRIMARY KEY	A Data Base Management System construct, where one or more fields uniquely define a record (entry) in a file (table). The fields are required to be populated for every record on the file, and are unique, in combination, for every record on the file.
PRIVATE INTEGRATION AGREEMENT	Where only a single application is granted permission to use an attribute/function of another **V*IST*A** package. These IAs are granted for special cases, transitional problems between versions, and release coordination. A Private IA is also created by the requesting package based on their examination of the custodian package's features. An example would be where one package distributes a patch from another package to ensure smooth installation.
PROMPT	The computer interacts with the user by issuing questions called prompts, to which the user issues a response.
RECORD	Set of related data treated as a unit. An entry in a VA FileMan file constitutes a record. A collection of data items that refer to a specific entity (e.g., in a name-address-phone number file, each record would contain a collection of data relating to one person).
REQUIRED FIELD	A mandatory field, one that must not be left blank. The prompt for such a field will be repeated until the user enters a valid response.
REVERSE VIDEO	The reversal of light and dark in the display of selected characters on a video screen. For example, if text is normally displayed as black letters on a white background, reverse video presents the text as white letters on a black background or vice versa.
ROUTINE	Program or a sequence of instructions called by a program that may have some general or frequent use. M (previously referred to as MUMPS) routines are groups of program lines, which are saved, loaded, and called as a single unit via a specific name.
SAC	**S**tandards **a**nd **C**onventions. Through a process of verification, **V*IST*A** packages are reviewed with respect to SAC guidelines as set forth by the Standards and Conventions Committee (SACC).
SACC	**V*IST*A**'s **S**tandards **a**nd **C**onventions **C**ommittee. This Committee is responsible for maintaining the SAC.
SCREEN EDITOR	VA FileMan's Screen-oriented text editor. It can be used to enter data into any WORD-PROCESSING field using full-screen editing instead of line-by-line editing.

SCREENMAN FORMS	Screen-oriented display of fields, for editing or simply for reading. VA FileMan's Screen Manager is used to create forms that are stored in the FORM file (#.403) and exported with a package. Forms are composed of blocks (stored in the BLOCK file [#.404]) and can be regular, full screen pages or smaller, "pop-up" pages.
SCREEN-ORIENTED	A computer interface in which you see many lines of data at a time and in which you can move your cursor around the display screen using screen navigation commands. Compare to Scrolling Mode.
SCROLLING MODE	The presentation of the interactive dialogue one line at a time. Compare to Screen-oriented.
STATION	A field facility or group of field facilities.
STATION NUMBER	A unique identifier assigned to any organizationally meaningful grouping of stations or facilities.
SUPPORTED REFERENCE INTEGRATION AGREEMENT	This applies where any **V*IST*A** application may use the attributes/functions defined by the IA (these are also called "**Public** "). An example is an IA that describes a standard API such as DIE or VADPT. The package that creates/maintains the Supported Reference must ensure it is recorded as a Supported Reference in the IA database. There is no need for other **V*IST*A** packages to request an IA to use these references; they are open to all by default.
TEMPLATE	Means of storing report formats, data entry formats, and sorted entry sequences. A template is a permanent place to store selected fields for use at a later time. Edit sequences are stored in the INPUT TEMPLATE file (#.402), print specifications are stored in the PRINT TEMPLATE file (#.4), and search or sort specifications are stored in the SORT TEMPLATE file (#.401).
TOOLKIT	Toolkit (or Kernel Toolkit) is a robust set of tools developed to aid the Veterans Health Information Systems and Technology Architecture (**V*IST*A**) development community, and Information Resources Management (IRM), in writing, testing, and analysis of code. They are a set of generic tools that are used by developers, documenters, verifiers, and packages to support distinct tasks. The Toolkit provides utilities for the management and definition of development projects. Many of these utilities have been used by the OI Field Office – Oakland (formerly San Francisco) for internal management and have proven valuable. Toolkit also includes tools provided by other OI Field Offices based on their proven utility.

TRIGGER	A type of VA FileMan cross-reference. Often used to update values in the database given certain conditions (as specified in the trigger logic). For example, whenever an entry is made in a file, a trigger could automatically enter the current date into another field holding the creation date.
VA	The Department of **V**eterans **A**ffairs, formerly called the **V**eterans **A**dministration.
VA FILEMAN	Set of programs used to enter, maintain, access, and manipulate a database management system consisting of files. A package of online computer routines written in the M language, which can be used as a stand-alone database system or as a set of application utilities. In either form, such routines can be used to define, enter, edit, and retrieve information from a set of computer stored files.
VAMC	**V**eterans **A**ffairs **M**edical **C**enter.
VARIABLE	Character, or group of characters, that refer(s) to a value. M (previously referred to as MUMPS) recognizes 3 types of variables: local variables, global variables, and special variables. Local variables exist in a partition of main memory and disappear at sign-off. A global variable is stored on disk, potentially available to any user. Global variables usually exist as parts of global arrays. The term "global" may refer either to a global variable or a global array. A special variable is defined by systems operations (e.g., $TEST).
VAST	**V**eterans **A**ffairs **S**tation **T**racker.
VDSI	**V***IST***A D**ata **S**ystems & **I**ntegration.
VHA	**V**eterans **H**ealth **A**dministration.
VISN	**V**eterans **I**ntegrated **S**ervice **N**etwork.
VISTA	**V**eterans Health **I**nformation **S**ystems and **T**echnology **A**rchitecture (**V***IST***A**) of the Veterans Health Administration (VHA), Department of Veterans Affairs (VA). **V***IST***A** software, developed by VA, is used to support clinical and administrative functions at VA Medical Centers nationwide. It is written in M, and, via the Kernel runs on all major M implementations regardless of vendor. **V***IST***A** is composed of packages that undergo a verification process to ensure conformity with namespacing and other **V***IST***A** standards and conventions.

Apendix A—Reference Material

The following is a list of supporting documents that were reviewed and contributors that were consulted throughout this project. Much of the content/information has been utilized/incorporated in the IFR Patch XU*8.0*206 software and documentation (listed in date order—earliest to latest):

- VHA DIRECTIVE 97-058, Dated November 24, 1997
- Institution Identification Design Specification draft, Dated January 6, 1998
- INSTITUTION FILE CLEAN-UP, Exchange E-mail message thread initiated by DBA, Cameron Schlehuber, Dated April 3, 1998
- INSTITUTION FILE REDESIGN PROJECT, Initial Requirements Analysis (IRA), Dated April 2, 1998, Revised July 11, 1998
- REPORT OF TECHNICAL REVIEW: INSTITUTION FILE REDESIGN, Exchange E-mail message thread initiated by Leigh Hurst, Dated December 21, 1998
- Institution File Redesign Project [#28736294] 08 Jan 99, From: METCALF, ROGER A - SOFTWARE ENGINEER (BAY PINES)
- INSTITUTION/FM DBIA [#29276272] 24 Mar 99, From: METCALF, ROGER A - SOFTWARE ENGINEER (BAY PINES)
- REPORT OF TECHNICAL REVIEW: INSTITUTION FILE REDESIGN, PHASE 2,E-mail message thread initiated by Leigh Hurst, Dated June 24, 1999
- VAST STATIONS, Exchange E-mail message thread initiated by Nick Gallo of Office of Policy and Planning, Dated July 27, 1999
- STATION NUMBER INVENTORY, Exchange E-mail message thread initiated by Kay Evans of CO, Dated September 22, 1999
- STATION TABLE, Exchange E-mail message thread initiated by Cindy Gunner of AAC, Dated September 22, 1999
- FYI: SHOULD BE PART OF FILE 4 CLEANUP, Exchange E-mail message thread initiated by Robert Whelan, Dated November 15, 1999
- INSTITUTION FILE PATCH ISSUES, Exchange E-mail message thread initiated by Christine Chesney, Dated December 17, 1999
- NED AND DATA QUALITY ISSUES, Exchange E-mail message thread initiated by Jeff Podolec, Dated January 4, 2000
- STATION NUMBERS/INSTITUTION FILE, Exchange E-mail message thread initiated by Dan Soraoka, Dated January 12, 2000
- INSTITUTION FILE UPDATES, Exchange E-mail message thread initiated by Steve Porter, Dated January 20, 2000
- 2/18 INSTALL, Exchange E-mail message thread initiated by Dan Ihlenfeld, Dated February 22, 2000
- Institution GOLD file [#30950058] 02 Mar 00, From: METCALF, ROGER A (CIOFO-SF)
- Institution file clean up [#30977229] 08 Mar 00, From: METCALF, ROGER A (CIOFO-SF)

- INSTITUTION File (#4) Redesign project [#31043748] 22 Mar 00,From: METCALF, ROGER A (CIOFO-SF)
- FORUM INSTITUTION FILE [#31069930] 28 Mar 00, From: METCALF, ROGER A (CIOFO-SF)
- Problem with Record Tracking and CIRN, Exchange E-mail message thread initiated by Christine Link, Dated March 29, 2000
- Institution file patch impacts on HEC, Exchange E-mail message thread initiated by Cameron Schlehuber, Dated May 26, 2000

NOTE: *For a list of other acknowledgements for this project, please refer to the "Acknowledgements" section near the beginning of this manual.*

Apendix B—Local Site IMF Administrator(s) Duties

Introduction

IFR Patch XU*8.0*209 will require that sites assign one or more Local Site Institution Master File (IMF) Administrator(s) to clean up, maintain, and monitor the master files located at a site. These administrators will most likely be member(s) of the site's Information Resource Management (IRM) Team.

The following duties will be the responsibility of the Local Site Institution Master File Administrator(s) of the INSTITUTION (#4) and FACILITY TYPE (#4.1) master files located at a site:

- Perform a Review/Check of the INSTITUTION File Data Prior to the Cleanup.
- Perform INSTITUTION File Cleanup (includes a background cleanup of the FACILITY TYPE file as well).
- Add/Modify Local Institution Data.
- Maintenance & Troubleshooting Master Files.

This section provides the step-by-step procedures and general information describing the day-to-day duties and maintenance requirements of the master files at a local site, as performed by the Local Site Institution Master File Administrator(s).

Institution File Data Review/Check

Sites should review/check their Institution and Institution-related data in the FORUM Institution Master File (IMF) prior to performing the cleanup at their site.

NOTE: *For more information on the Institution Master File Cleanup Process, pleased refer to the "Institution File Cleanup Process" topic that follows in this section.*

This review will help make the data in the FORUM IMF more accurate for your Parent Facility and all associated facilities. The primary goals of these data checks include the verification of the following:

- All Station Numbers associated with your Parent Facility are included.
- All data for your Parent Facility and its associated facilities are correct (e.g., Station Number, State, Type, and if appropriate, an Inactive Facility Flag with an Effective Date).
- No invalid Station Numbers are associated with your Parent Facility.
- All legacy facility data is correct (e.g., data contains an Inactive Facility Flag with an Effective Date).
- (Recommended) All Institutions of Type Veterans Affairs Medical Center (VAMC) and/or Medical and Regional Office Center (M&ROC) have unique naming conventions in order to ease data entry.

The following data fields need to be checked in the FORUM INSTITUTION file (#4). They are the primary focus of Patch XU*8*206 and should be checked for accuracy:

- NAME (#.01)—This name should be a unique name for VAMC facilities.
- STATE (#.02)—Write Identifier
- STATUS (#11)
- FACILITY TYPE (#13)—Write Identifier
- ASSOCIATIONS (#14, Multiple)—The valid Association Types are:
  - VISN
  - Primary Facility (Parent Facility) Station Number
- STATION NUMBER (#99)—Write Identifier
- OFFICIAL VA NAME (#100)
- INACTIVE FACILITY FLAG (#101)—Write Identifier (used in conjunction with the EFFECTIVE DATE under the HISTORY Multiple)
- HISTORY (#999, Multiple)
  - EFFECTIVE DATE (#.01)
  - REALIGNED TO (#.05)
  - REALIGNED FROM (#.06)

NOTE: *The Master File Server (MFS) uses the HL7 protocol for messaging. The above fields are currently included in the HL7 Interface Specification for the INSTITUTION file (#4). We are not addressing any other fields in the HL7 Interface Specification at this time. However, we will address any data issues related to those additional fields, if needed, at a future date.*

Step-By-Step Procedures (1-6)

The following steps are recommended:

1.) Log on to FORUM. This is the host (production) Institution Master File (IMF) server.

2.) Select the DBA menu [DBA], as shown below:

```
Select Software Services Primary Menu Option: dba


          List Package file by Name
          List Package file by Prefix
          Find lo-high range of filenumbers
          Package file inquire
          Package file inquire by #
          Institution file inquire
   VISN   Institution List by VISN
   PRNT   Institution List by Parent
          SACC Exemptions ...
          Domain file inquire
          Integration Agreements Menu ...
          Standards and Conventions
          MOP-UP ...
   TCP    Print TCP/IP Domain Data Summary
          Children of a package
          GUI Standard Guidelines
          List Manager Standards ...
          Port Assignments for TCP
          SAGG Access to Albany CIOFO


You have PENDING ALERTS
          Enter  "VA   VIEW ALERTS     to review alerts

Select DBA Option:
```

The VISN—Institution List by VISN and PRNT—Institution List by Parent options are new with Patch XU*8*209.

Figure 3: DBA Menu on FORUM

The three options that are used to assist sites in reviewing/checking their data in the FORUM IMF are:

- Institution file inquire [DBA INSTITUTION INQUIRE]
- VISN—Institution List by Vision [XUMF IMF BY VISN]
- PRNT—Institution List by Parent [XUMF IMF BY PRNT]

These options will be described in greater detail in the steps that follow.

3.) Verify Facility Station Numbers and Naming Conventions

a. From the DBA menu on FORUM, select the Institution file inquire option [DBA INSTITUTION INQUIRE]. This option displays all the facilities associated with the Institution name or Station Number entered.

```
Select DBA Option: insti
    1    Institution file inquire
    2    Institution List by Parent
    3    Institution List by VISN
CHOOSE 1-31: 1 <Enter>  Institution file inquire

Select INSTITUTION NAME:
```

Figure 4: Using the Institution file inquire option to verify facility naming conventions

b. Enter your Primary Facility three-digit STATION NUMBER (#99) after the "Select INSTITUTION NAME:" prompt. This gives you a list of all associated facilities as stored in the FORUM IMF, as shown below:

```
Select INSTITUTION NAME: 442
     1   442  CHEYENNE          WY  M&ROC     442
     2   4429AA  WICHITA        KS  VANB      4429AA
     3   442DT  SCOTTSBLUFF ANNEX  NE  STNB  442DT
     4   442GA  CASPER           WY  CBOC      442GA    INACTIVE
     5   442GB  SIDNEY           NE  CBOC      442GB
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: <Enter>
     6   442GC  FT. COLLINS     CO  CBOC      442GC
     7   442GD  CHEYENNE        WY  CBOC      442GD
CHOOSE 1-7:  1 <Enter>  CHEYENNE        WY  M&ROC     442

DEVICE: <Enter>  UCX DEVICE    Right Margin: 80// <Enter>
INSTITUTION LIST                              AUG 30,2001  19:22
-------------------------------------------------------------------------------


NAME: CHEYENNE                          STATE: WYOMING
  DISTRICT: 23                          VA TYPE CODE: MC&RO
  REGION: 4                             STATUS: National
  STREET ADDR. 1: VA Medical and Regional Office Center
  STREET ADDR. 2: 2360 East Pershing Boulevard
  CITY: CHEYENNE                        ZIP: 82001
  FACILITY TYPE: M&ROC
ASSOCIATIONS: VISN                      PARENT OF ASSOCIATION: VISN 19
ASSOCIATIONS: PARENT FACILITY           PARENT OF ASSOCIATION: CHEYENNE
  STATION NUMBER: 442
EFFECTIVE DATE: JAN 12, 2               NAME (CHANGED FROM): CHE     E-VAMC
EFFECTIVE DATE: JAN 25, 2               NAME (CHANGED FROM): CH      E-VAMC
NAMESPACE: AAV
NAMESPACE: AAW
NAMESPACE: AAX
  NUMBERSPACE HIGH: 4                   E LOW: 44
  SUPPORTING ISC: SLC

Select INSTITUTION NAME:
```

The Cheyenne, WY Primary Facility (i.e., Station Number 442) and its associated facilities are listed here.

As you see here, you should always see two Association Types for each facility.

Station Number 442 and its associated facilities are located in VISN 19.

Figure 5: Sample list of a Primary Facility with its associated Institutions in the FORUM INSTITUTION File (#4)

NOTE: *The Primary Facility Station Number consists of only three digits and no suffix.*

c. Verify that the list of associated facilities displayed is accurate for your Primary Facility:

- Are all of the Station Numbers associated with your Primary Facility listed? If not, notate those Station Numbers that are missing.
- Are there any Station Numbers listed that are not associated with your Primary Facility? If so, notate those Station Numbers that are incorrectly associated with your Primary Facility.

d. Verify that the VAMC/M&ROC names displayed are unique when compared to the associated facilities. If not unique, notate those Station Numbers.

To speed data entry (avoid having to choose from a list), it is best if VAMC/M&ROC Institution names are unique. For example, prior to any updates to the FORUM IMF, the North Chicago facilities were named as follows:

```
Select INSTITUTION NAME: north ch
     1   NORTH CHICAGO          IL  D          556BU
     2   NORTH CHICAGO          IL  VANB       5569AA
     3   NORTH CHICAGO          IL  PRRTP      556PA
     4   NORTH CHICAGO          IL  VAMC       556
CHOOSE 1-4: ^

Select INSTITUTION NAME:
```

Figure 6: North Chicago facilities naming convention before data updated in the FORUM IMF

In this example (Figure 6), you'll notice that The VAMC Primary Facility name is *not* unique. It has the same name as its associated facilities (i.e., "NORTH CHICAGO").

After reviewing the FORUM IMF data, Station Number 556's associated facilities' names were changed from "NORTH CHICAGO" to "NORTH CHGO." This made the VAMC Primary Facility name unique from the associated facilities' names, as shown below:

```
Select INSTITUTION NAME: north ch
     1   NORTH CHGO             IL  D          556BU
     2   NORTH CHGO             IL  VANB       5569AA
     3   NORTH CHGO             IL  PRRTP      556PA
     4   NORTH CHICAGO          IL  VAMC       556
CHOOSE 1-4: ^

Select INSTITUTION NAME:
```

Figure 7: North Chicago facilities naming conventions after data updated in the FORUM IMF

The following example (Figure 8) further illustrates names in the FORUM IMF that are *not* unique and should be notated:

```
Select INSTITUTION NAME: knoxville
     1   KNOXVILLE              IA  VAMC      592      INACTIVE Oct 01, 1997
     2   KNOXVILLE              TN  NC        855
     3   KNOXVILLE              IA  VANB      5929AA
     4   KNOXVILLE              IA  VAMC      555A4    INACTIVE Apr 01, 2000
     5   KNOXVILLE              IA  D         555BV    INACTIVE Apr 01, 2000
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: <Enter>
     6   KNOXVILLE              IA  PRRTP     592PA
     7   KNOXVILLE              TN  SOC       626BY
     8   KNOXVILLE              IA  VAMC      636A7
     9   KNOXVILLE              IA  D         636BV
CHOOSE 1-9: <Enter>

Select INSTITUTION NAME:
```

The VAMC Institution name "Knoxville" is *not* unique in the FORUM IMF.

Figure 8: Sample list of Institutions in the FORUM INSTITUTION File (#4) that are *not* uniquely named

e. Verify that any VAMC/M&ROC that is the Primary Facility Health Care System (HCS) name contains the letters "HCS." If not, notate the Station Numbers. For example:

```
Select INSTITUTION NAME: 663
     1   663  PUGET SOUND HCS  WA  VAMC      663
     2   6639AA  SEATTLE       WA  VANB      6639AA
     3   6639AF  SEATTLE       WA  STNB      6639AF
     4   6639AG  SEATTLE       WA  STNB      6639AG
     5   663A4  AMERICAN LAKE  WA  VAMC      663A4
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: ^

Select INSTITUTION NAME:
```

Figure 9: Sample of a Health Care System (HCS) Naming Convention

f. Print out a copy of the MEDICAL CENTER DIVISION file (#40.8) at your site. This printout will be used to verify data in the FORUM IMF (See Step #3g that follows). For example, use VA FileMan to display/print the entries in File #40.8, as shown below:

```
VA FileMan 22.0

Select OPTION: INQUIRE TO FILE ENTRIES


OUTPUT FROM WHAT FILE: HL LOGICAL LINK// 40.8 <Enter>  MEDICAL CENTER DIVISION
                                          (5 entries)
Select MEDICAL CENTER DIVISION NAME: ??

   Choose from:
   1            CHEYENNE VAMROC     442
   2            CASPER     442GA
   3            FORT COLLINS     442GC
   4            GREELEY     442GD
   5            SIDNEY     442GB

Select MEDICAL CENTER DIVISION NAME:
```

List of Institutions in File #40.8 for Station Number 442.

Figure 10: Sample list of Institutions in the MEDICAL CENTER DIVISION file (#40.8)

g. Compare each facility name in the MEDICAL CENTER DIVISION file (#40.8):

- Verify that all the facilities in File #40.8 are listed in the IMF. If not, notate those missing Station Numbers.

  NOTE: *For an example of missing Station Numbers, please refer to Step #6c that follows.*

- Compare the names of all the facilities in File #40.8 against the names listed in the FORUM IMF. If the names don't match and should, notate those Station Numbers where name modifications are required.

  For example, when you compare the entries displayed in Figure 10 with the entries in Figure 5, you see that Station Number 442GC's name doesn't match. It is "FORT COLLINS" in File #40.8 and "FT. COLLINS" in the FORUM IMF, which is correct?

4.) Verify any Legacy Site Data, if any.

All legacy facilities that have been realigned should have a corresponding Station Number where the first three digits are the same as the legacy Primary Facility Station Number. Each of these realigned facilities must have a TO value unless that facility was inactivated and does not physically exist any more. Also, any legacy facility that has been previously realigned must have a FROM value.

a. From the DBA menu on FORUM, select the new PRNT—Institution List by Parent option [XUMF IMF BY PRNT]. This option displays all the facilities associated with a particular parent facility (i.e., Primary Facility).

b. Enter the legacy site's STATION NUMBER (#99) after the "Enter parent facility station number:" prompt, as shown below:

```
Select DBA Option: prnt <Enter>  Institution List by Parent
Enter parent facility station number:  555


Institution list              Aug 21, 2001@13:24:03            Page:      1 of   1

 STA #  INSTITUTION NAME                ST  TYPE   FROM   TO     INACTIVE DATE
 555    CENTRAL IOWA HCS                IA  VAMC          636A6  Apr 01, 2000
 555A4  KNOXVILLE                      IA  VAMC   592    636A7  Apr 01, 2000
 555BU  DES MOINES                      IA  D             636BU  Apr 01, 2000
 555BV  KNOXVILLE                      IA  D             636BV  Apr 01, 2000
 555DT  MARSHALLTOWN                    IA  STDM          636DW  Apr 01, 2000
 555EL  MARSHALLTOWN                    IA  STNB          636EL  Apr 01, 2000
 555GA  MASON CITY                      IA  CBOC
 555HA  MARSHALLTOWN                    IA  ORC
 555HB  MASON CITY                      IL  ORC
 555HC  OTTUMWA                         IA  ORC    592HA  636GE  Apr 01, 2000
 555HD  MARSHALLTOWN                    IA  ORC    592HB  636GD  Apr 01, 2000


          Enter ?? for more actions

Select Action:Quit// <Enter>  QUIT
```

Figure 11: Using the PRNT—Institution List by Parent option to verify legacy site data

c. Check the validity of the legacy data in the following fields/columns:

- ST—This is the State, is it correct for the listed facility?
- TYPE—This is the Facility Type, is it correct?

  NOTE: *For a list of TYPEs and their acronym definitions, please refer to "Appendix D—Facility Type Acronyms" in this manual.*

- FROM— If applicable, is it correct?

  NOTE: *Any legacy facility that has been previously realigned must have a FROM value.*

- TO—This is the new Station Number, is it correct?

  NOTE: *Any legacy facility that has been realigned must have a TO value unless that facility was inactivated and does not physically exist.*

- INACTIVE DATE—All legacy Station Numbers should have an inactive date.

In the example above (Figure 11), we can see that Station Number 555 is a legacy facility and was realigned under Station Number 636 (i.e., 636A6). However, it appears that Station Numbers 555GA, 555HA, and 555HB do not indicate any values in the TO and INACTIVE DATE columns. If these entries have been realigned, they should have values entered in those fields. Otherwise, the missing TO Station Number indicates that those facilities no longer exist. If that is incorrect, notate that information.

d. Verify that all the legacy facilities are listed. If not, notate those missing legacy Station Numbers.

e. Verify that all the legacy facilities listed are valid. If not, notate those invalid legacy Station Numbers.

5.) Verify your Primary Facility Association Data.

a. From the DBA menu on FORUM, select the new PRNT—Institution List by Parent option [XUMF IMF BY PRNT]. This option displays all the facilities associated with a particular parent facility (i.e., Primary Facility).

b. Enter your Primary Facility's STATION NUMBER (#99) after the "Enter parent facility station number:" prompt, as shown below:

```
Select DBA Option: prnt <Enter>  Institution List by Parent
Enter parent facility station number:  442


Institution list              Sep 05, 2001@12:34:53          Page:    1 of    1

 STA #  INSTITUTION NAME                ST  TYPE   FROM   TO     INACTIVE DATE
 442    CHEYENNE                      WY  M&ROC
 442DT  SCOTTSBLUFF ANNEX             NE  STNB
 442GA  CASPER                        WY  CBOC
 442GB  SIDNEY                        NE  CBOC
 442GC  FT. COLLINS                   CO  CBOC
 442GD  CHEYENNE                      WY  CBOC

          Enter ?? for more actions

Select Action:Quit// <Enter>   QUIT
```

Figure 12: Using the PRNT—Institution List by Parent option to verify Primary Facility data

c. Check the validity of the data in the following fields/columns:

- ST—This is the State, is it correct for the listed facility? If not, notate the correct State (ST).
- TYPE—This is the Facility Type, is it correct? If not, notate the correct TYPE.

  NOTE: *For a list of TYPEs and their acronym definitions, please refer to "Appendix D—Facility Type Acronyms" in this manual.*

- FROM—This is the facility realigned from–the legacy Station Number for the associated facility/type.
- TO—This field should be blank.
- INACTIVE DATE—Only/All inactive facilities must have an inactive date.

d. Verify that all the associated facilities are listed. If not, notate those missing Station Numbers. For example, when you compare this list of facilities associated with Station Number 442 above (Figure 12) with the list of facilities in Figure 5, you'll notice that Station Number 4429AA generated by the Institution file inquire option is missing from the list generated by the PRNT—Institution List by Parent option (Figure 12). In this case, Station Number 4429AA should change its association to the Primary Facility Station Number 442 and should be notated by the site.

NOTE: *Six-character numbers (e.g., 4429AA) are Patient Treatment File (PTF) numbers assigned to Nursing Home facilities. They are an exception to the business rule that only Station Numbers approved by 045A4 (Central Office) will be stored in the STATION NUMBER filed (#99) in the IMF.*

e. Verify that all the associated facilities listed are valid. If not, notate those invalid Station Numbers. For example, if a facility is listed using this option, and it shouldn't be associated with that Parent/Primary Facility, notate that Station Number.

6.) Verify the VISN data.

a. From the DBA menu on FORUM, select the new VISN—Institution List by VISN option [XUMF IMF BY VISN]. This option shows all the facilities associated with a particular Veterans Integrated Service Network (VISN).

b. Enter the VISN number after the "Select VISN:" prompt, as shown below:

```
Select DBA Option: visn <Enter>  Institution List by VISN
Select VISN:  19


 436    MONTANA HCS                      MT  M&ROC
 436GA  ANACONDA CBOC                    MT  CBOC
 436GB  GREAT FALLS CBOC                 MT  CBOC
 436GC  MISSOULA CBOC                    MT  CBOC
 436GD  BOZEMAN CBOC                     MT  CBOC
 436GF  WHITEFISH CBOC                   MT  CBOC
 436GH  BILLINGS CBOC                    MT  CBOC   617GA
 436GJ  MILES CITY CBOC                  MT  CBOC
 436GK  SIDNEY CBOC                      MT  CBOC
 442    CHEYENNE                         WY  M&ROC
 442GB  SIDNEY                           NE  CBOC
 442GC  FT. COLLINS                      CO  CBOC
 554    DENVER                           CO  VAMC
 554CP  FT. CARSON                       CO  RO-OC
 554DU  FLORENCE                         CO  CIVH
 554GB  AURORA                           CO  CBOC
 554GC  LAKEWOOD                         CO  CBOC

Select Action:Next Screen// <Enter>   NEXT SCREEN

 567    SOUTHERN COLORADO HCS            CO  VAMC
 567GA  PUEBLO                           CO  CBOC
 567GB  COLORADO SPRINGS                 CO  CBOC
 567GC  ALAMOSA                          CO  CBOC
 567GD  LAMAR                            CO  CBOC
 567GE  LA JUNTA                         CO  CBOC
 575    GRAND JUNCTION                   CO  VAMC
 575GA  MONTROSE                         CO  CBOC
 617    MILES CITY                       MT  VAMC          436A4  Oct 01, 1998
 660    SALT LAKE CITY HCS               UT  VAMC
 660GA  POCATELLO                        ID  CBOC
 660GB  OGDEN                            UT  CBOC
 660GD  ROOSEVELT                        UT  CBOC
 660GG  SAINT GEORGE                     UT  CBOC
 660GH  TOOELE                           UT  CBOC
 660GI  NEPHI                            UT  CBOC
 666    SHERIDAN                         WY  VAMC

Select Action:Next Screen// <Enter>   NEXT SCREEN

Institution list              Aug 30, 2001@19:23:47          Page:    3 of    3

+STA #  INSTITUTION NAME                ST  TYPE   FROM   TO     INACTIVE DATE
 666GB  CASPER                          WY  CBOC
 666GC  RIVERTON                         WY  CBOC
 666GD  POWELL                           WY  CBOC
 666GE  GILLETTE                         WY  CBOC


          Enter ?? for more actions

Select Action:Quit// <Enter>   QUIT
```

List of Institutions in the FORUM IMF for VISN 19.

Station Numbers 442GA and 442GD are listed in File #40.8 but are missing from the FORUM IMF. This should be notated.

Press the Enter key in order to see more entries.

Press the Enter key in order to see more entries.

Figure 13: Using the VISN—Institution List by VISN option to verify VISN Data

c. Verify that all the associated facilities are listed. If not, notate those missing Station Numbers.

   For example, when you compare the entries displayed in Figure 10 with the entries in Figure 13, you see that Station Numbers 442GA and 442GD are missing from the FORUM IMF and should be notated.

d. Verify that all the associated facilities listed are valid. If not, notate those invalid Station Numbers.

7.) Send all noted items from Steps 1-6 to the following FORUM mail group:

G.XUMF INSTITUTION@FORUM.VA.GOV.

The FORUM IMF Administrator(s) will process any modifications notated and may contact the sites for further clarification, if needed.

Institution File Cleanup Process

Over time the INSTITUTION file (#4) has evolved into a collection of file entries, which could loosely be considered institution-like, and each file varies greatly from site to site. Since the INSTITUTION file is referenced by numerous **V*IST*A** applications, the Cleanup process is required to achieve a level of standardization of national entries in support of data exchange initiatives while avoiding a conversion of file references from a vast array of applications. For example, many **V*IST*A** applications use the INSTITUTION file STATION NUMBER field (#99) to resolve the logical link used in **V*IST*A**'s HL7 software. However, problems occur when two or more INSTITUTION file entries have the same STATION NUMBER value or when STATION NUMBER field values are missing from INSTITUTION files altogether.

The Institution File Cleanup process will do the following:

- Achieve a level of standardization and synchronization of *national* entries in support of data exchange initiatives.
- Avoid a conversion of file references from the vast array of **V*IST*A** applications that currently reference the INSTITUTION file.

IFR Patch XU*8.0*209 provides the Institution File Query / Update option [XUMF INSTITUTION] that uses a List Manager interface to provide utilities/actions to help the Local Site Institution Master File Administrator(s) "clean up" the INSTITUTION (#4) and FACILITY TYPE (#4.1) files located at their site.

These utilities should be run at the initial implementation of Patch XU*8.0*209 as well as whenever the Local Site Institution Master File Administrator(s) and/or IRM deem it necessary.

Specifically, the Cleanup process provides:

- Capability to compare Institution data in the site's (local) INSTITUTION file (#4) vs. FORUM's (national) Institution Master File (IMF, "Gold" file) through several list options.
- Functionality to resolve duplicate STATION NUMBER field values.
- Functionality to automatically merge FORUM's Institution Master File (IMF) *national* data with the local site's INSTITUTION file (#4).
- Functionality to automatically merge FORUM's Facility Type Master File (FMF) *national* data with the local site's FACILITY TYPE file (#4.1).

  NOTE: *This is a background job; no user interface is required.*

The Cleanup utilities utilize the query functionality provided by the Master File Server (MFS) mechanism to query the FORUM IMF *national* data. The data is returned to the local site that stores the IMF data in a temporary global. The Cleanup utilities use this stored information to compare and display the *national* data entries in the Institution Master File (IMF) on FORUM with *local* data entries in the INSTITUTION file at the site. The comparison process matches on STATION NUMBER (#99, duplicates *not* allowed) rather than on NAME (#.01, duplicates allowed). The Cleanup process uses List Manager to display a side-by-side comparison list, sorted by STATION NUMBER.

The Cleanup process requires that sites resolve duplicate STATION NUMBER field (#99) values before merging *national* data from the Institution Master File (IMF) located on FORUM with the data found in a local site's INSTITUTION file, such as deleting the duplicate STATION NUMBER field value from the site's INSTITUTION file. However, the INSTITUTION file entry of the duplicate is *not* deleted.

Institution File Query / Update [XUMF INSTITUTION]

The Institution File Query / Update [XUMF INSTITUTION] provides the following List Manager actions:

- LLCL—List local station numbers.
- NATL—List national data to merge.
- DSTA—Delete local/dup. station #.
- RDSN—Resolve duplicate station numbers.
- AUTO—Auto update with national data.
- CHCK—Required clean up actions.

NOTE: *These List Manager actions are described in greater detail in the topics that follow.*

The software through this option will automatically connect with the Master File Server (MFS) and obtain the Institution Master File (IMF) and Facility Type Master File (FMF) data on FORUM and store them in a temporary global on the local system. This process can take approximately five minutes. It will then display the INSTITUTION file data in a List Manager screen for comparison purposes. If the software fails to connect to the MFS, an error message will be displayed.

List local station numbers

The List local station numbers (LLCL) List Manager action checks for and displays any STATION NUMBER field values that are in the site's local INSTITUTION file (#4) but *not* in the FORUM IMF; these are *local* entries.

Specifically, this action does the following:

- Checks for the local INSTITUTION file entries *not* in the FORUM IMF.

  NOTE: *The Cleanup process will eventually delete these STATION NUMBER field values.*

- Displays an informational list of local INSTITUTION file entries *not* in the FORUM IMF. The following INSTITUTION file data is displayed:
  - Station Number
  - Institution Name
  - Internal Entry Number (IEN)
  - Facility Type

NOTE: *Sites may wish to print this list before running the Auto update with national data (AUTO) List Manager action to see which Station Number entries will be deleted from the local site's INSTITUTION (#4) file.*

NOTE: *All local Station Numbers must be deleted using the Delete local/dup. station # (DSTA) and/or Resolve duplicate station numbers (RDSN) List Manager actions before the Auto update with national data (AUTO) List Manager action will allow the site to auto update their INSTITUTION (#4) file with the IMF data.*

List national data to merge

The List national data to merge List Manager action checks for and displays any *national* STATION NUMBER field values that are in the FORUM IMF that will be added to the site's local INSTITUTION file (#4). Users should notate and/or print this list because the STATION NUMBER field values indicated will be added to the site's local INSTITUTION file (#4) when the Auto update with national data List Manager action is run

Specifically, this action does the following:

- Checks for the FORUM *national* IMF entries *not* in the local site's INSTITUTION file.

  NOTE: *The Cleanup process will merge these FORUM IMF entries with the local site's INSTITUTION file.*

- Displays an informational list of the FORUM *national* IMF entries *not* in the local site's INSTITUTION file. The following INSTITUTION file information is displayed (see Figure 18 that follows):
  - Station Number
  - Institution Name
  - State
  - Facility Type

  NOTE: *Sites may wish to print this list before running the Auto update with national data (AUTO) List Manager action to see which entries will be merged with the local site's INSTITUTION (#4) file.*

Delete local/dup. station #

The Delete local/dup. station# List Manager action deletes local and certain duplicate STATION NUMBER field values from the sites local INSTITUTION file (#4). All duplicate STATION NUMBER field values must be resolved before the Auto update with national data List Manager action will allow the site to automatically update their local INSTITUTION file (#4) with the *national* FORUM IMF entries.

Specifically, this action does the following:

- Deletes all *local* STATION NUMBER field values from the local site's INSTITUTION file *not* found in the FORUM IMF. However, it does *not* delete the entire file entry of those local entries.

  NOTE: *To get a list of local Station Numbers to be deleted prior to actually deleting them, use the List local station numbers (LLCL) List Manager action prior to running this action (see the "List national data to merge" topic shown previously).*

- Displays those entries for which the local STATION NUMBER field (#99) value was deleted in the Action Area of the List Manager screen to denote processing (i.e., bottom area of the List Manager screen where the action menu is displayed). The following INSTITUTION file information is displayed:
  - Station Number
  - Internal Entry Number (IEN)

- Deletes duplicate STATION NUMBER field values that can be automatically resolved. However, it does *not* delete the entire file entry of those duplicate entries. For each set of duplicates, the action checks to see if just *one* entry in the set is pointed to by the HL7 LOGICAL LINK file (#870); if so, that entry is kept and the value of the STATION NUMBER field (#99) of the other duplicate entries are deleted.

  NOTE: *To resolve those duplicate entries not automatically deleted, use the Resolve duplicate station numbers List Manager action (RDSN, description follows).*

- Displays those entries for which the duplicate STATION NUMBER field (#99) values were automatically resolved and deleted in the Action Area of the List Manager screen to denote processing (i.e., bottom area of the List Manager screen where the action menu is displayed). The following INSTITUTION file information is displayed (see Figure 21 that follows):
  - Station Number
  - Internal Entry Number (IEN)

- Displays any duplicate sets of STATION NUMBER field values found in the local INSTITUTION file requiring manual review and resolution (i.e., the set of duplicates having no pointer from File #870). The following INSTITUTION file information is displayed:
  - Line Number
  - Station Number
  - Institution Name
  - Internal Entry Number (IEN)

  NOTE: *After reviewing and deciding which of these duplicates to delete, use the Resolve duplicate station numbers (RDSN) List Manager action to remove those duplicates from the local site's INSTITUTION file.*

- Provides an additional List Manager action, Resolve duplicate station numbers (RDSN), to resolve the duplicates requiring manual intervention.
- Creates a new cross-reference ^DIC(4,"AOLD99",IEN,station_number) for all deleted STATION NUMBER field (#99) values.

NOTE: *All local and duplicate Station Numbers must be deleted using the Delete local/dup. station # (DSTA) and/or Resolve duplicate station numbers (RDSN) List Manager actions before the Auto update with national data (AUTO) List Manager action will allow the site to automatically update their local INSTITUTION (#4) file with the FORUM IMF data.*

If the site's own STATION NUMBER (#99) is a duplicate, then extreme caution must be exercised when selecting the STATION NUMBER entry to delete, since the INSTITUTION file (#4) is referenced by other standard files, such as the HL LOGICAL LINK (#870), MEDICAL CENTER DIVISION (#40.8), and STATION NUMBER (TIME SENSITIVE) (#389.9) files. These file entries should be checked *before* and *after* performing the Cleanup process to verify that they point to a valid INSTITUTION file entry, complete with STATION NUMBER.

Also, please note that other V*IST*A applications (including Automated Medical Information Exchange [AMIE], Record Tracking, and MPI/PD) may be negatively affected, if their pointers to an INSTITUTION file entry don't have a valid STATION NUMBER.

Resolve duplicate station numbers

The Resolve duplicate station numbers List Manager action allows users to select the duplicate STATION NUMBER field value to delete from the site's local INSTITUTION file (#4). All duplicate STATION NUMBER field values must be resolved before the Auto update with national data List Manager action will allow the site to automatically update their local INSTITUTION file (#4) with the *national* FORUM IMF entries.

Specifically, this action does the following:

- Allows selection from a list of duplicates.
- Deletes the STATION NUMBER field (#99) value of the selected duplicate; however, it does *not* delete the entire file entry of that duplicate selected.

The Resolve duplicate station numbers (RDSN) List Manager action is only available *after* running the Delete local/dup. station # (DSTA) List Manager action (see Delete local/dup. station # shown previously). You must continuously select this action until *all* unresolved duplicates have been reviewed and deleted from the local site's INSTITUTION file. You must resolve all duplicates *before* running the Auto update with national data (AUTO) List Manager action.

If the site's own STATION NUMBER (#99) is a duplicate, then extreme caution must be exercised when selecting the STATION NUMBER entry to delete, since the INSTITUTION file (#4) is referenced by other standard files, such as the HL LOGICAL LINK (#870), MEDICAL CENTER DIVISION (#40.8), and STATION NUMBER (TIME SENSITIVE) (#389.9) files. These file entries should be checked *before* and *after* performing the Cleanup process to verify that they point to a valid INSTITUTION file entry, complete with STATION NUMBER.

Also, please note that other V*IST*A applications (including Automated Medical Information Exchange [AMIE], Record Tracking, and MPI/PD) may be negatively affected, if their pointers to an INSTITUTION file entry don't have a valid STATION NUMBER.

NOTE: *All duplicate Station Numbers must be deleted using the Delete local/dup. station # (DSTA) and/or Resolve duplicate station numbers (RDSN) List Manager actions before the Auto update with national data (AUTO) List Manager action will allow the site to automatically update their INSTITUTION (#4) file with the FORUM IMF data.*

If a problem in a specific package should arise, that issue may have to be dealt with on a case-by-case basis. IFR Patch XU*8.0*209 does implement an API, $$O99^XUAF4(IEN), and a cross-reference, "O99", that can be used to resolve (re-point) any package specific issues.

NOTE: *For more information on the $$O99^XUAF4(IEN), please refer to the "$$099^XUAF4—Merged Duplicates Function API"" API under the "Application Programmer Interfaces (APIs)" topic in Chapter 2, "Programmer Manual Information," in the "Institution File Redesign (IFR) Supplement to Patch XU*8*206 manual."*

Auto update with national data

The Auto update with national data List Manager action merges the FORUM IMF *national* entries into the site's local INSTITUTION file (#4).

Specifically, this action does the following:

- Checks for local and duplicate STATION NUMBER field values:
  - **Local or Duplicate Entries Exist—**Notifies the user and suspends the update until the duplicates are resolved.
  - **No Local or Duplicate Entries Exist—**Updates the local site's INSTITUTION file data with FORUM *national* data.
- Flags the STATUS field based on the appropriate record type:
  - ***National* Entries—**Sets the STATUS field (#11) to "National" in the local site's INSTITUTION file.
  - ***Local* Entries—**Sets the STATUS field (#11) to "Local" in the local site's INSTITUTION file.

Specifically, the Auto Update process does the following:

A. Cleans out any data stored in the STATION NAME field (#7).

B. Sets the INACTIVE FACILITY FLAG field (#101) and deletes the STATUS field (#11) value for any entry with a STATUS field (#11) of INACTIVE.

C. Merges the FORUM IMF data with the local site's INSTITUTION file (#4).

1. Sets the STATUS field (#11) flag to "National" for *national* entries and to "Local" for *local* entries.

2. Populates the following INSTITUTION file fields (listed in field number order):

- NAME (#.01).
- STATE (#2).
- FACILITY TYPE (#13).
- STATION NUMBER (#99).
- OFFICIAL VA NAME (#100).

D. Sets the INACTIVE FACILITY FLAG (#101) for inactive facilities and deactivated Station Numbers.

E. Sets a pointer to/from the new/old INSTITUTION file entry together with the effective date for Integrated/realigned facilities; these values will be stored in the following HISTORY subfile (#4.999) fields (listed in field number order):

- EFFECTIVE DATE (#.01).
- REALIGNED TO (#.05).
- REALIGNED FROM (#.06).

The Auto update with national data (AUTO) List Manager action will take approximately 5-10 minutes to run and the terminal will "hang" until complete. When this action is completed, the cleanup of the local site's INSTITUTION file will be done. However, you should run the Required clean up actions (CHCK) List Manager action to verify that there are no further duplicates and that all IMF data merged correctly.

Required clean up actions

The Required clean up actions List Manager action verifies that all required Cleanup actions have been taken prior to initiating the Auto update with national data (AUTO) List Manager action

Step-by-Step Procedures (1-10)

The following is the *suggested* order of the step-by-step procedures to clean up the local site's INSTITUTION file (required steps are notated):

Prior to performing the Cleanup, make sure you review/check the data in the FORUM IMF file.

For more information on reviewing/checking data, please refer to the "Institution File Data Review/Check" topic, previously described in this appendix.

1.) (Required) Log on to the system.

2.) (Required) Choose the **Institution File Query / Update option [XUMF INSTITUTION]**, as shown below:

```
Select OPTION NAME: XUMF
     1   XUMF FORUM INSTITUTION       Institution Master File edit
     2   XUMF INSTITUTION       Institution File Query / Update
CHOOSE 1-2: 2 <Enter>  XUMF INSTITUTION     Institution File Query / Update
Institution File Query / Update

...connecting with master file server...
...please wait...(approx. 5 minutes)...

...getting FACILITY TYPE file...

...getting INSTITUTION file...................
```

The master files are being accessed. Please realize that it may take a few minutes before you are ready to proceed.

Figure 14: Initial dialogue when using the Institution File Query / Update option [XUMF INSTITUTION]

As this example shows (Figure 14), to initiate the Cleanup process we chose the XUMF INSTITUTION option (i.e., Institution File Query / Update) by entering "**2**" at the "CHOOSE 1-2:" prompt when given a list of XUMF options from which to choose.

The software automatically connected to the Master File Server (MFS) in order to obtain both the FACILITY TYPE (#4.1) and INSTITUTION (#4) master files on FORUM. The following messages were displayed notifying us that this process was taking place and that it can take several minutes to complete:

```
...connecting with master file server...
...please wait...(approx. 5 minutes)...
```

When both master files on FORUM were obtained and stored in a temporary global on the local system the following was displayed:

```
...getting FACILITY TYPE file...

...getting INSTITUTION file...................
```

At this point we were ready to proceed to the next step in the Cleanup process (see **Step #3** that follows).

3.) (Optional) Visually compare the local site's INSTITUTION file data in the List Manager column headed "INSTITUTION NAME" with FORUM's national Institution Master File (IMF) data in the List Manager column headed "GOLD NAME," as shown below:

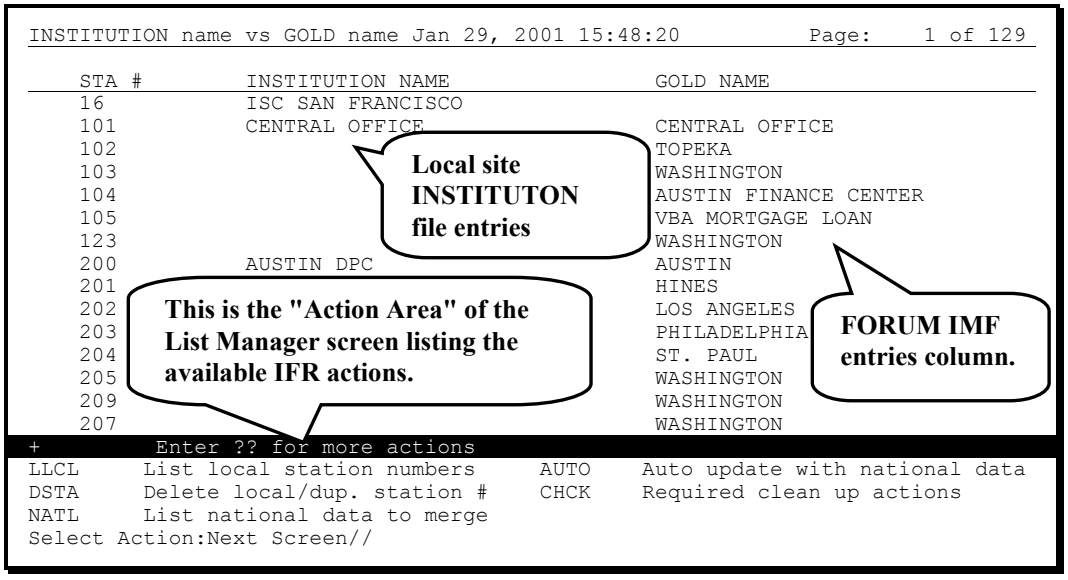

Figure 15: Sample INSTITUTION file data at a site compared with data on FORUM.

This main screen (Figure 15) displays a side-by-side view of the current INSTITUTION (#4) file entries at the site (middle column) along with the corresponding IMF entries on FORUM (right column), sorted by Station Number (left column). You'll notice that some items are missing an Institution Name or an IMF Name and that some items' Names are not the same.

For example, see Station Number 102 in Figure 15 shown previously. As you can see there is no Name displayed under the "INSTITUTION NAME" column, however, "TOPEKA" is displayed under the "GOLD NAME" column in the display.

Missing or different Name entries may be due to one of the following:

- **Name listed in the "INSTITUTION NAME" column, but missing in the "GOLD NAME" column—**These are the site's INSTITUTION file (#4) Station Number entries that are missing in the IMF (i.e., "Gold"). For example, see Station Number 16 in Figure 15 shown previously. The Cleanup process will delete these Station Number field entries from the local site's INSTITUTION file.

  NOTE: *To get a specific list of these entries, use the List local station numbers (LLCL) List Manager action (see **Step #4** that follows).*

- **Name listed in the "GOLD NAME" column, but missing in the "INSTITUTION NAME" column—**These are the IMF Station Number (i.e., "Gold") entries that are missing in the site's INSTITUTION file (#4). For example, see Station Number 103 in Figure 15 shown previously. The Cleanup process will add these FORUM IMF Station Number entries to the local site's INSTITUTION file.

  NOTE: *To get a specific list of these entries, use the List national data to merge (NATL) List Manager action (see **Step #5** that follows).*

- **Name found in both the "GOLD NAME" and "INSTITUTION NAME" columns, but different—**In this case the FORUM IMF entry Name will be assumed correct and will be used to update the local site's INSTITUTION file (#4) when the Cleanup Process Auto update with national data (AUTO) List Manager action is run (see **Step #8** that follows). For example, see Station Number 200 in Figure 15 shown previously.

The purpose of this list is to compare the local site's INSTITUTION file vs. the FORUM IMF. If duplicate Station Numbers exist in the local file, they are *not* displayed twice in the list. However, the Delete local/dup. station # (DSTA) List Manager action will list all duplicates deleted or requiring manual review for resolution (see **Steps #6** that follows). The Resolve duplicate station numbers (RDSN) List Manager action is used to review/resolve these duplicates (see **Step #7** that follows).

4.) (Optional but recommended) Choose the **List local station numbers (LLCL)** List Manager action to visually notate those STATION NUMBER field (#99) values in the local site's INSTITUTION file (#4) that will be deleted when the Delete local/dup. station # (DSTA) List Manager action is run (see **Step #6** that follows).

If you select the List local station numbers (LLCL) List Manager action *before* running either the Delete local/dup. station # (DSTA) or Auto update with national data (AUTO) List Manager actions and you have Station Numbers unique to your site, you might be presented with a list (List Manager screen) similar to the following:

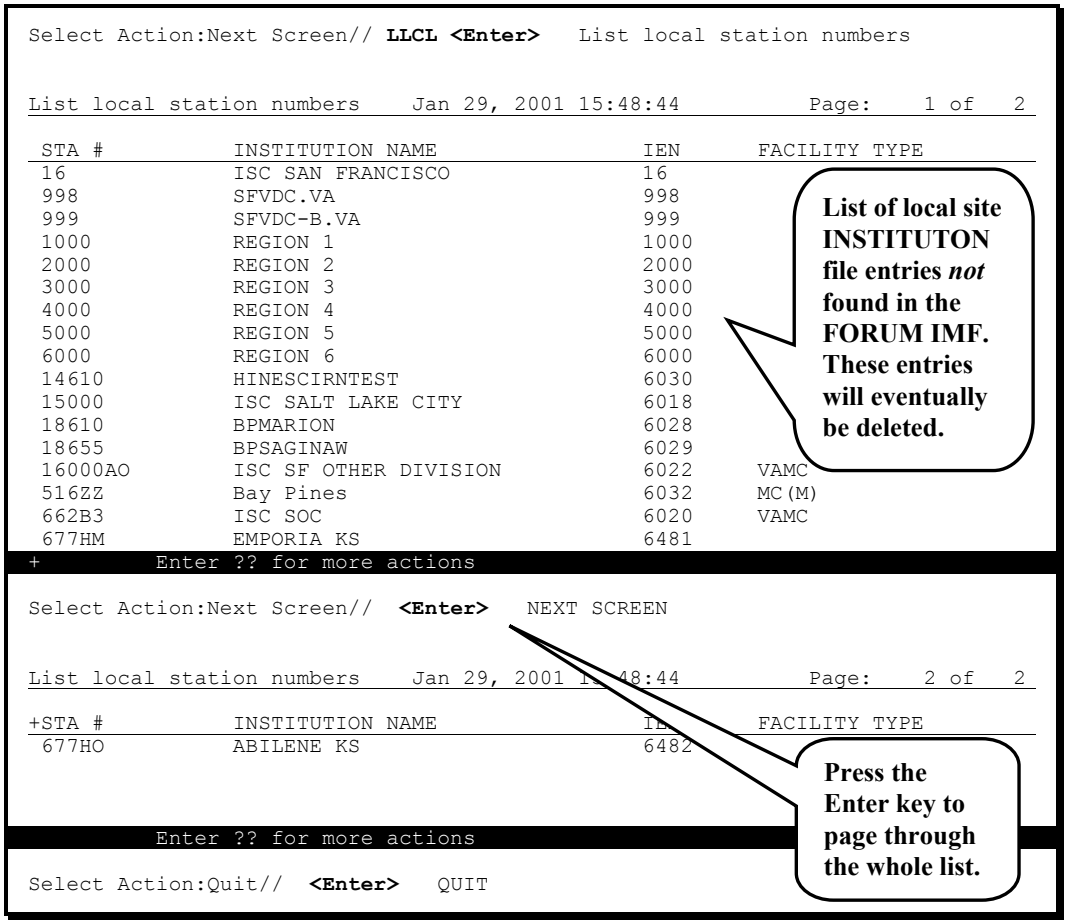

Figure 16: Using the List local station numbers (LLCL) action

In this example (Figure 16), we wanted to list the local entries that will be deleted during the Cleanup process. Thus we entered "**LLCL**" (List local station numbers) at the "Select Action:Next Screen//" prompt.

As you can see, 18 local Station Numbers unique to this site that are *not* found in the FORUM IMF were displayed. To see the complete list, we had to press the **Enter** key at the "Select Action:Next Screen//" prompt. When we were through viewing the list, we pressed the **Enter** key at the "Select Action:Quit//" prompt to accept the "Quit" Default.

Cleanup of the local site's INSTITUTION file will require that all of these local STATION NUMBER field (#99) values be deleted from the file. The entries are deleted using the Delete local/dup. station # (DSTA) List Manager action (see **Step #6** that follows).

If you select the List local station numbers (LLCL) List Manager action again *after* running the Auto update with national data (AUTO) List Manager action or there are no unique local Station Numbers, you will be presented with the following List Manager screen:

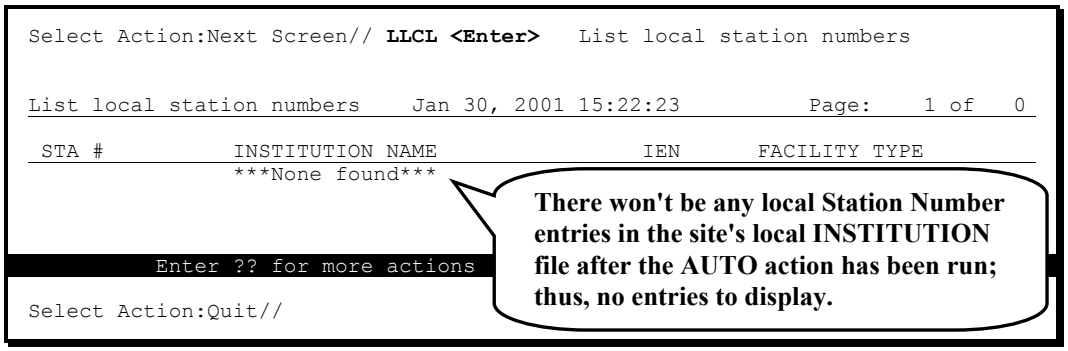

Figure 17: Using the List local station numbers (LLCL) action after running the AUTO action

In this example (Figure 17), the local site's INSTITUTION file has already been updated (i.e., all local Station Numbers have been deleted); thus, there won't be any local Station Number entries to display when we run the Lost local station numbers (LLCL) List Manager action again.

NOTE: *You generally won't find any local Station Numbers after running the Delete local/dup. station # (DSTA) List Manager action either. However, there may still be some unresolved duplicate local Station Numbers that will continue to be displayed until they are reviewed by the user and resolved using the Resolve duplicate station numbers (RDSN) List Manager action (see* ***Step #7*** *that follows).*

5.) (Optional) Choose the **List national data to merge (NATL)** List Manager action to visually notate those entries that will be merged with the local site's INSTITUTION file (#4) when the Auto update with national data List Manager action is run (see **Step #8** that follows).

If you select the List national data to merge (NATL) List Manager action, you will be presented with a list (List Manager screen) similar to the following:

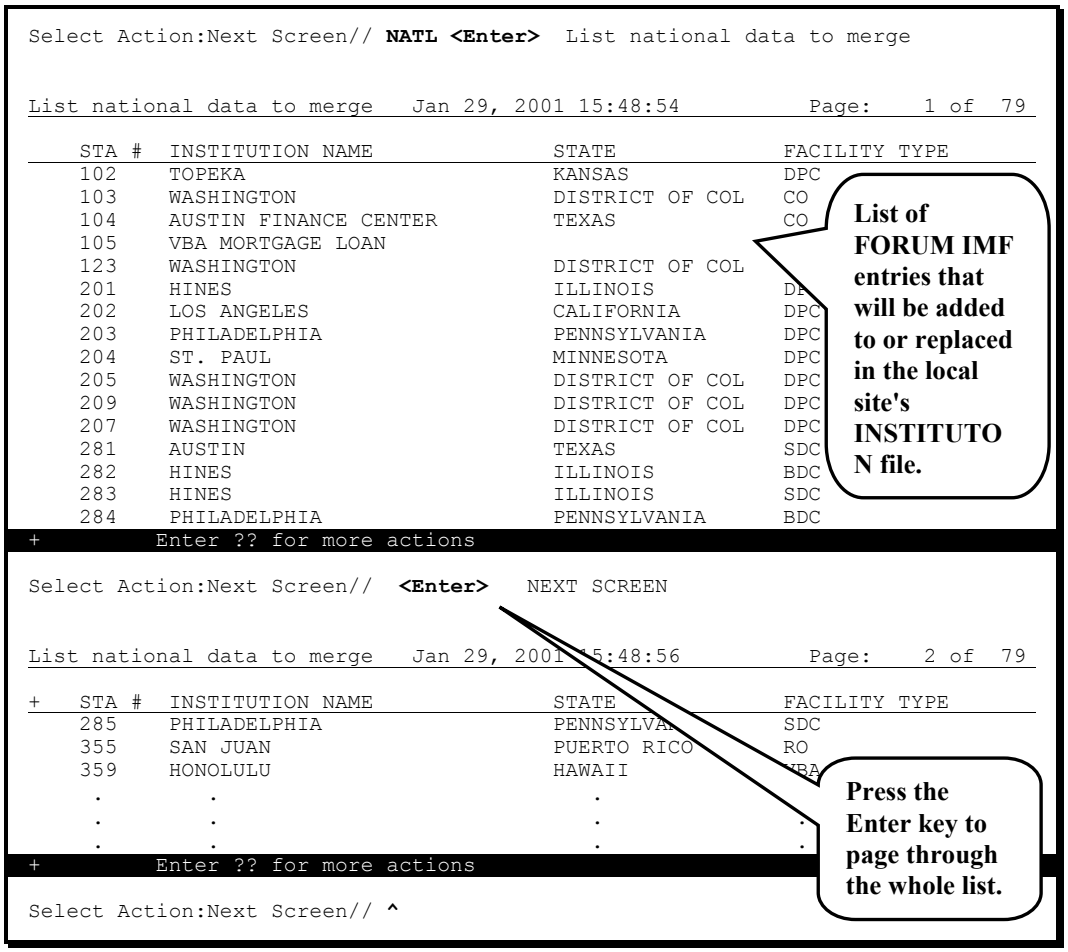

Figure 18: Using the List national data to merge (NATL) action

In this example (Figure 18), we wanted to see the FORUM IMF entries that would be merged with the local site's INSTITUTION file. Thus, we entered "**NATL**" (List national data to merge) at the "Select Action:Next Screen//" prompt.

The software automatically displays all of the FORUM IMF entries. In this case, we see that there are 79 pages of data. For the sake of brevity, we have only shown a page and half of data. To see all of the entries on the subsequent pages, you need to press the **Enter** key at the "Select Action:Next Screen//" prompt until you reach the last page (screen) of the list.

If you select the List national data to merge (NATL) List Manager action again *after* running the Auto update with national data (AUTO) List Manager action, you will be presented with the following List Manager screen:

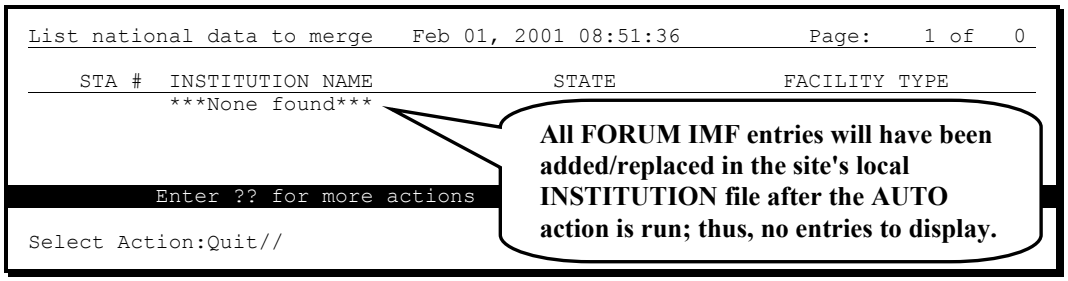

Figure 19: Using the List national data to merge (NATL) action after running the AUTO action

In this example (Figure 19), the local site's INSTITUTION file has already been updated (i.e., all FORUM IMF data has been merged into the local site's INSTITUTION file), thus, there won't be any FORUM IMF entries to display when we run the List national data to merge (NATL) List Manager action again.

6.) (Required) Choose the **Delete local/dup. station # (DSTA)** List Manager action when you wish to delete duplicate and *local* STATION NUMBER field values from the local site's INSTITUTION file (#4), as shown below:

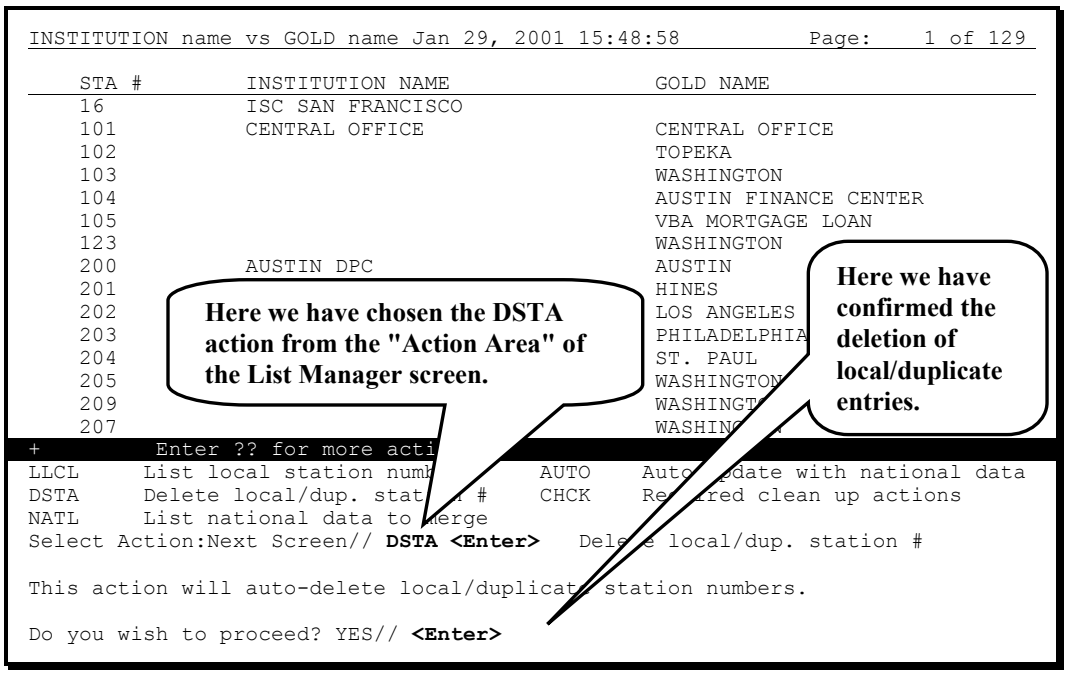

Figure 20: Using the Delete local/dup. station # (DSTA) action

After reviewing the local entries (see **Step #4** and Figure 16 shown previously), we decided to delete the local and duplicate Station Numbers from the local site's INSTITUTION file (#4) by entering "**DSTA**" (Delete local/dup. station #) at the "Select Action:Next Screen//" prompt.

The software immediately warned us that "This action will auto-delete local/duplicate station numbers." We confirmed our intentions by pressing the **Enter** key to accept the default of "YES" at the "Do you wish to proceed? YES//" prompt.

The software began displaying the entries being deleted in the "Action Area" of the List Manager display (i.e., bottom area of the List Manager screen where the action menu is displayed, see Figure 15 shown previously) as shown below:

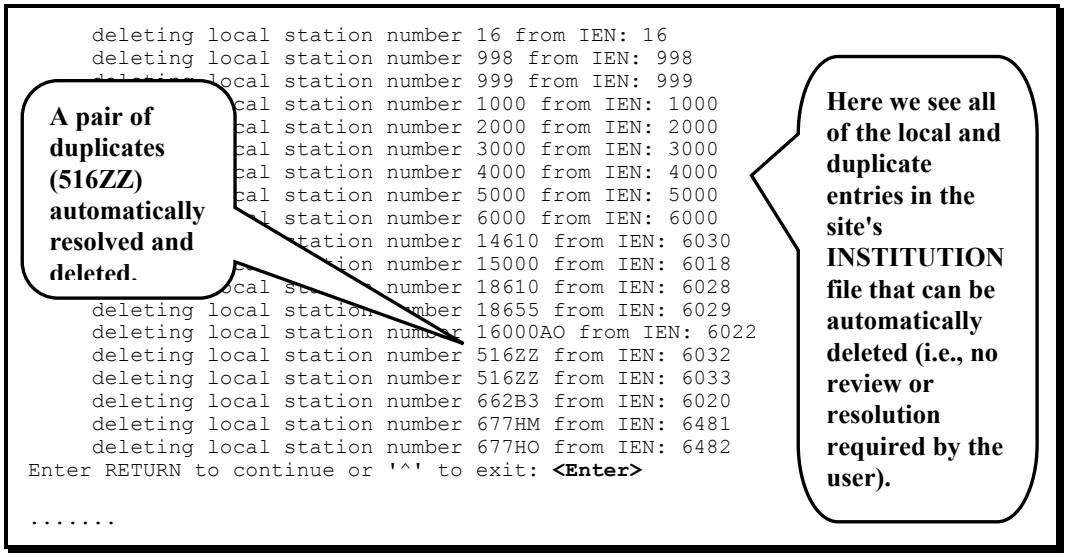

Figure 21: Using the Delete local/dup. station # (DSTA) action—Deleting local and duplicate entries

Figure 21 displays those entries for which the local and duplicate STATION NUMBER field (#99) values were automatically resolved and deleted (i.e., the set where only *one* of the duplicate entries had a valid pointer from File #870). This list is displayed in the Action Area of the List Manager screen. You'll notice, for example, that duplicate Station Number 516ZZ was automatically resolved and deleted along with the other local entries in the local site's INSTITUTION file.

The software, however, was unable to resolve *all* of the duplicates in the local site's INSTITUTION file. Those duplicate sets of STATION NUMBER field (#99) values found in the local INSTITUTION file (#4) requiring review and resolution (i.e., the set having no pointer from File #870) are shown in Figure 22 below:

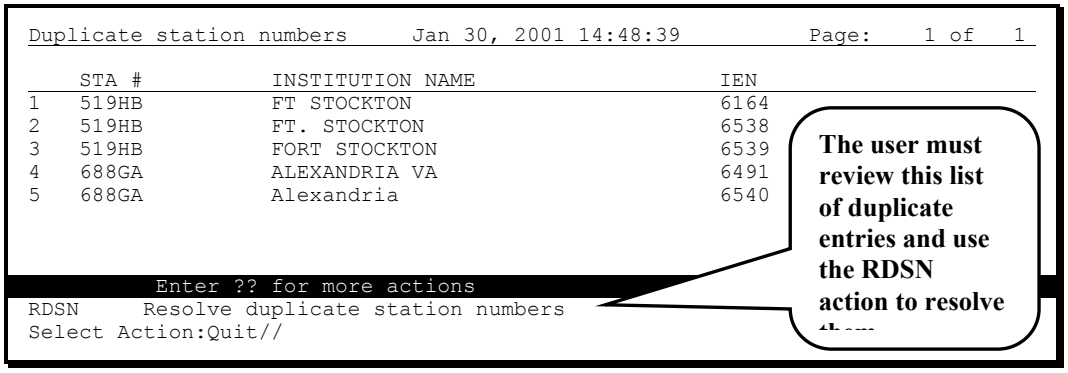

Figure 22: Using the Delete local/dup. station # (DSTA) action—Unresolved duplicates

Since there are unresolved duplicate sets of entries in the INSTITUTION file (see Figure 22 shown previously), the software presents the Resolve duplicate station numbers (RDSN) List Manager action to be used after reviewing and determining which of the duplicates should be deleted.

NOTE: *For more information on the Resolve duplicate station numbers (RDSN) List Manager action, please refer to* ***Step #****7 that follows.*

If you select the Delete local/dup. station # (DSTA) List Manager action again *after* running the Delete local/dup. station # (DSTA) and Resolve duplicate station numbers (RDSN) List Manager actions (when all duplicates have been resolved) or the Auto update with national data (AUTO) List Manager action, you will be presented with the following List Manager screen:

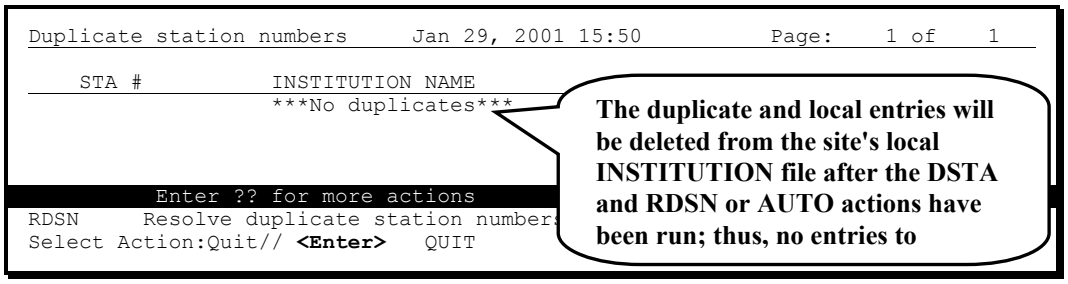

Figure 23: Using the Delete local/dup. station # (DSTA) action—No unresolved duplicates

In this example (Figure 23), the local site's INSTITUTION file has already been updated to remove local and duplicate entries, thus, there won't be any duplicate entries to display when we run the Delete local/dup. station # (DSTA) List Manager action again.

7.) (Required If duplicates still exist after **Step #6** shown previously) Choose the **Resolve duplicate station numbers (RDSN)** List Manager action when user review is required to resolve duplicates in the local site's INSTITUTION file (see **Step # 6** shown previously).

The use of the Resolve duplicate station numbers (RDSN) List Manager action is illustrated in Figure 24 through Figure 26 that follow:

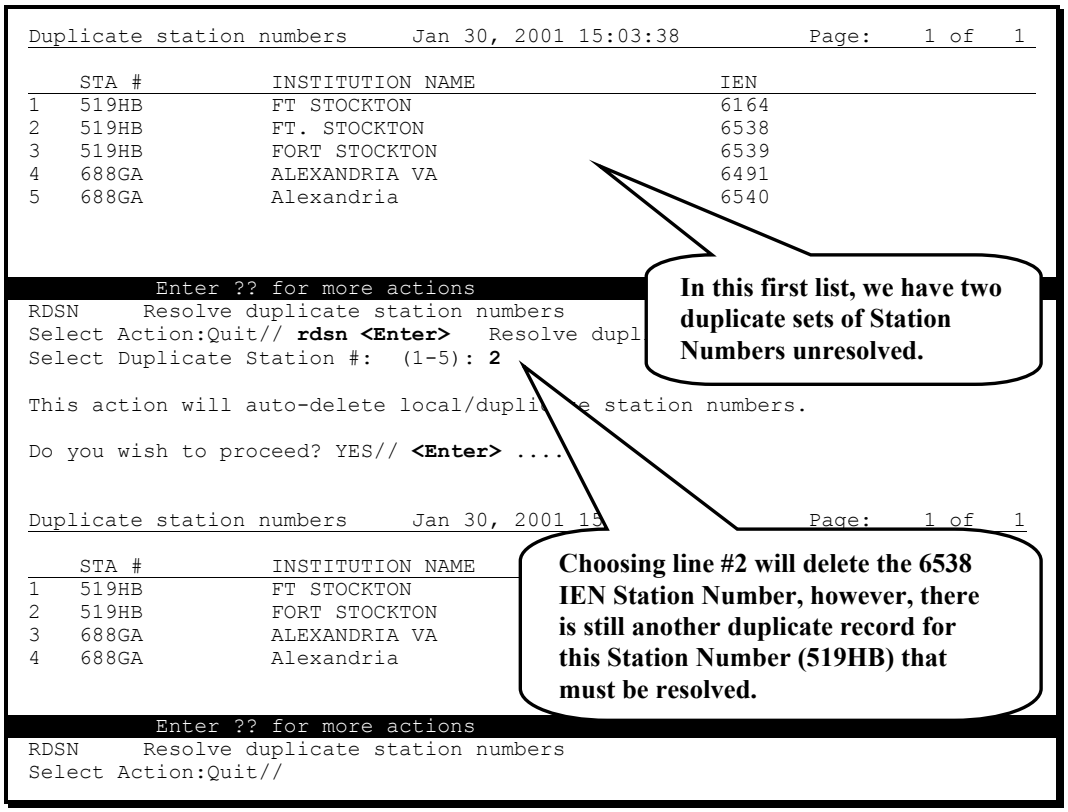

Figure 24: Using the Resolve duplicate station numbers (RDSN) action—Resolving duplicates (1)

In this example (Figure 24), after running the Delete local/dup. station # (DSTA) List Manager action (see Figure 22 shown previously), we had two duplicate sets of Station Numbers that couldn't be resolved automatically.

We first reviewed the list of unresolved duplicates in order to determine which of the duplicates should be deleted from the local site's INSTITUTION file. One set of duplicates has three duplicate Station Numbers (519HB) and another set has two duplicate Station Numbers (688GA).

For this example, we've decided that the following Station Numbers (see the first list displayed in Figure 24 shown previously) needed to be deleted:

LINE #	STA #	INSTITUTION NAME	IEN
2	519HB	FT. STOCKTON	6538
3	519HB	FORT STOCKTON	6539
5	688GA	Alexandria	6540

To remove these selected Station Number field values, we ran the Resolve duplicate station numbers List Manager action by entering "**RDSN**" at the "Select Action:Quit//" prompt (see Figure 24 shown previously).

To delete the first duplicate record in the first set of STATION NUMBER 519HB duplicates (i.e., Line #2), we entered a "**2**" at the "Select Duplicate Station #: (1-5):" prompt. The RDSN action displayed the following message:

"This action will auto-delete local/duplicate station numbers."

We confirmed our intentions by pressing the **Enter** key to accept the default of "YES" at the "Do you wish to proceed? YES//" prompt.

The RDSN action then automatically deleted the FT. STOCKTON (i.e., IEN 6538) STATION NUMBER field (#99) value from the local site's INSTITUTION file. The resulting updated List Manager screen is redisplayed, as shown below:

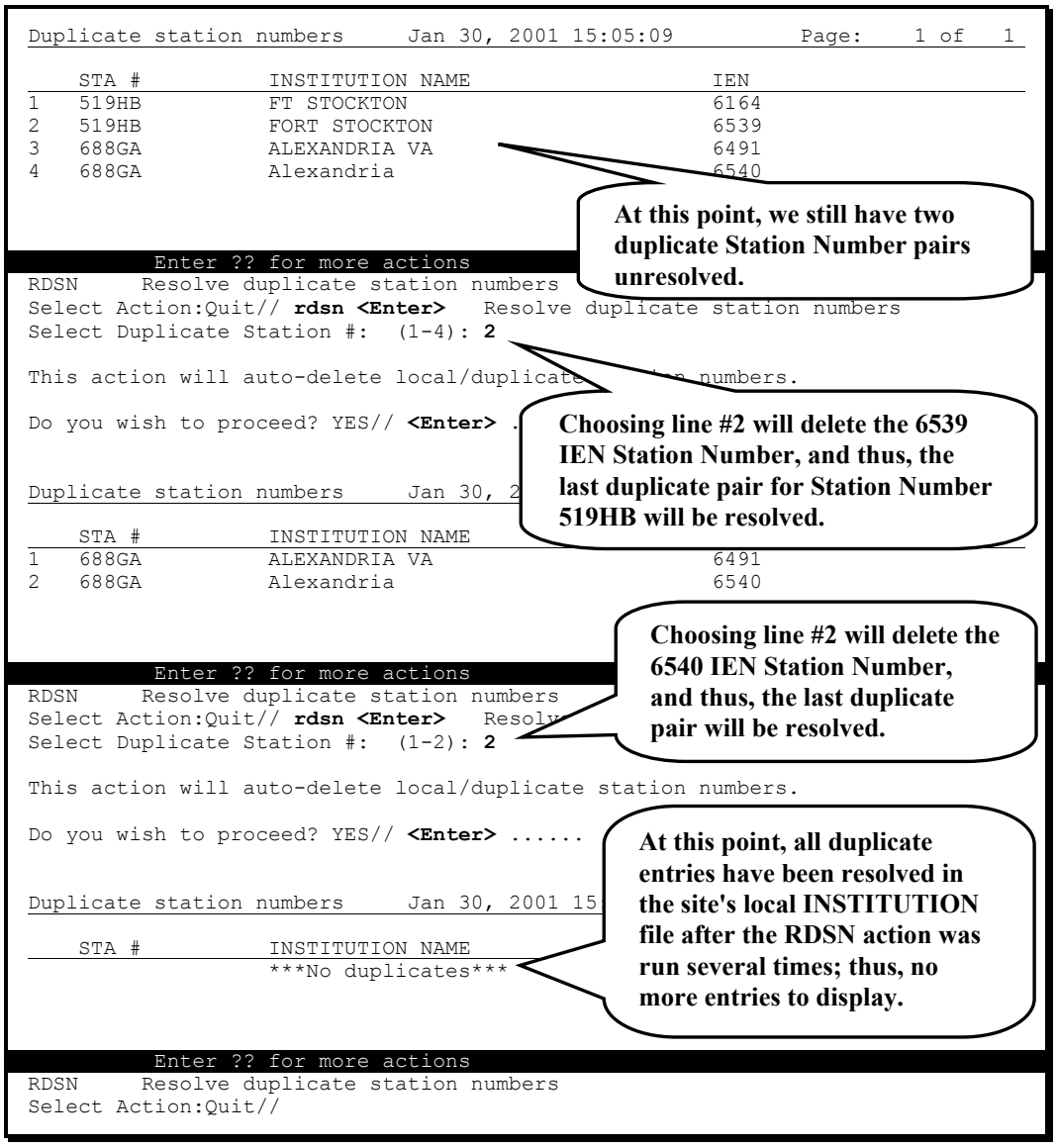

Figure 25: Using the Resolve duplicate station numbers (RDSN) action—Resolving duplicates (2)

When you compare the first list in this figure (Figure 25) with the first list in Figure 24 shown previously, you'll notice that the FT. STOCKTON duplicate entry has now been removed (deleted) from the list and the local site's INSTITUTION file as well.

To delete the second and last duplicate record in the first set of STATION NUMBER 519HB duplicates (i.e., Line #2), we entered a "**2**" at the "Select Duplicate Station #: (1-4):" prompt. The RDSN action displayed the following message:

```
"This action will auto-delete local/duplicate station numbers."
```

We confirmed our intentions by pressing the **Enter** key to accept the default of "YES" at the "Do you wish to proceed? YES//" prompt.

Once again the list is redisplayed. However, at this point, all of the first set of STATION NUMBER 519HB duplicates have been resolved, and thus, are no longer displayed in the list.

We are now just left with the last pair of duplicates for STATION NUMBER 688GA.

To delete the second and last duplicate record in the second set of STATION NUMBER 688GA duplicates (i.e., Line #2), we entered a "**2**" at the "Select Duplicate Station #: (1-2):" prompt. The RDSN action displayed the following message:

```
"This action will auto-delete local/duplicate station numbers."
```

We confirmed our intentions by pressing the **Enter** key to accept the default of "YES" at the "Do you wish to proceed? YES//" prompt.

Once again the list is redisplayed. However, at this point, *all* of the duplicates have been resolved, and thus, there are no more entries to display in the list.

If we select the Resolve duplicate station numbers (RDSN) List Manager action again, we will see the following screen:

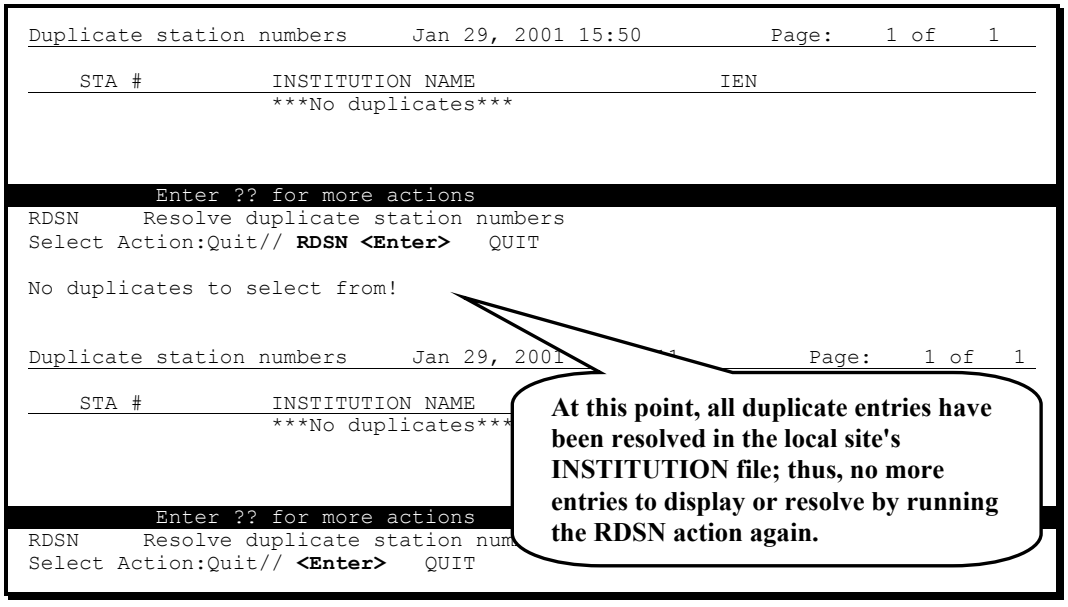

Figure 26: Using the Resolve duplicate station numbers (RDSN) action—All duplicates resolved

At this point all of the duplicate records have been resolved, so running the Resolve duplicate station numbers (RDSN) again is unnecessary.

8.) (Required) Choose the **Auto update with national data (AUTO)** List Manager action when you are ready to merge the FORUM IMF *national* entries with the local site's INSTITUTION file (#4).

After performing **Steps #4 - #7** shown previously, you are now ready to run the Auto update with national data (AUTO) List Manager action, as shown below:

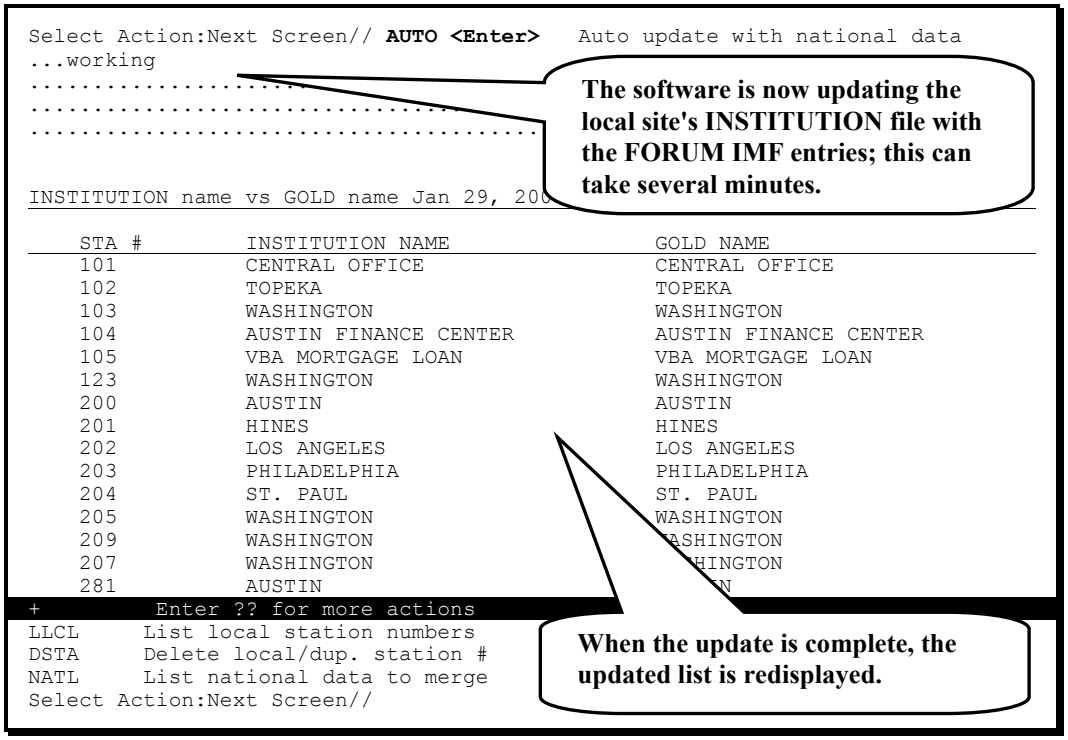

Figure 27: Using the Auto update with national data (AUTO) action—After eliminating duplicates

As you can see from this example (Figure 27), we chose to run the update, *after* all previous tasks had been completed (see **Steps #4 - #7** shown previously), by entering "**AUTO**" (Auto update with national data) at the "Select Action:Next Screen//" prompt.

The software indicates the update is taking place by displaying the word "working" and a series of dots while it merges the FORUM IMF entries with the local site's INSTITUTION file.

When the update has completed, the list of entries is redisplayed. Compare this list to the original list displayed in Figure 15 shown previously. You'll notice that the entries in both columns now match each other exactly. We have now successfully cleaned the local site's INSTITUTION file!

You should run the Required clean up actions (CHCK) List Manager action to confirm that the update completed successfully (see **Step #9** and Figure 31 that follows).

Running the Auto update with national data (AUTO) List Manager action *prior* to completing **Steps #6 - #7** shown previously, you will be presented with the following List Manager screen:

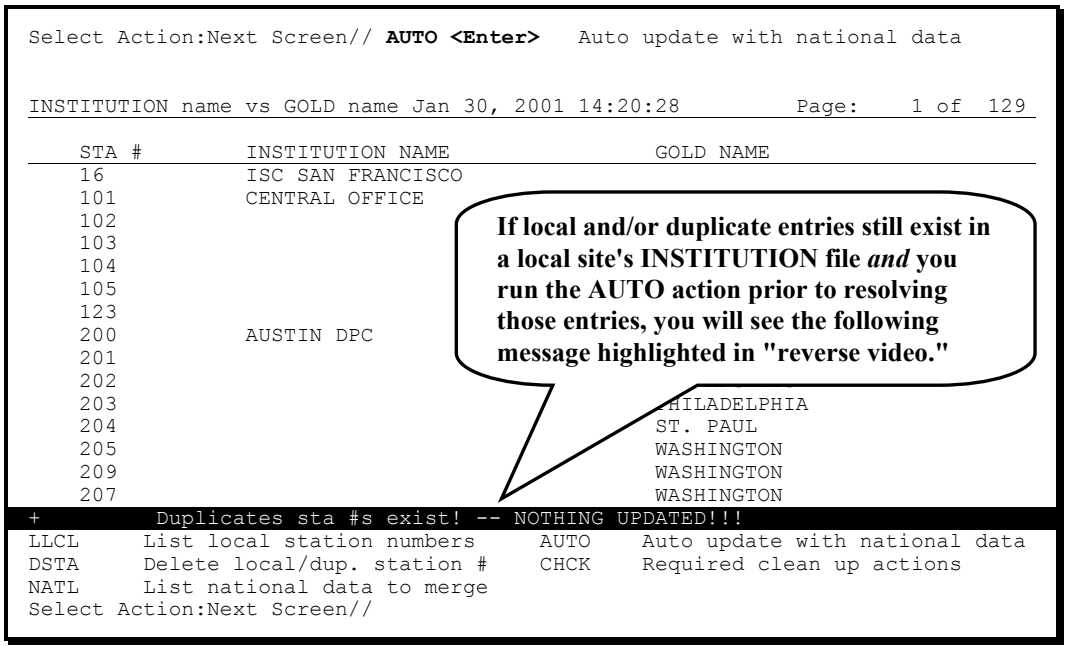

Figure 28: Using the Auto update with national data (AUTO) action—Prior to eliminating local and duplicate entries

You *cannot* run the Auto update with national data (AUTO) Action without first running the Delete local/dup. station # (DSTA) and Resolve duplicate station numbers (RDSN) List Manager actions, if any local or duplicate entries still exist in the local site's INSTITUTION file.

9.) (Required) Choose the **Required clean up actions (CHCK)** List Manager action to monitor the system status after you've initiated the Auto update with national data (AUTO) List Manager action. This action can be run at any time to determine which steps are required to successfully complete the local site's INSTITUTION file (#4) cleanup.

Specifically, this action does the following:

- Checks for local and duplicate Station Numbers (see **Steps #4** and **#6 - #7** shown previously).
- Checks for missing FORUM IMF entries in the local site's INSTITUTION file (see **Steps #5** and **#8** shown previously).
- Displays any discrepancies found with the appropriate resolving action.
- Notifies the user when the update is completed, if no discrepancies are found.

Running the Required clean up actions (CHCK) List Manager action *prior* to completing **Steps #6 - #8** shown previously, you will be presented with the following List Manager screen:

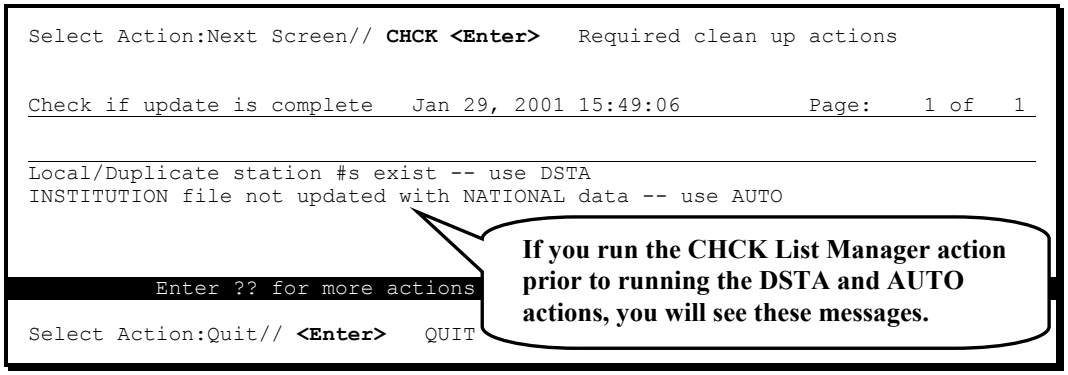

Figure 29: Using the Required clean up actions (CHCK) action—Prior to running the DSTA and AUTO actions

In this example (Figure 29), we chose to run the Required clean up actions (CHCK) List Manager Action by entering "**CHCK**" at the "Select Action:Next Screen//" prompt.

Since the Delete local/dup. station # (DSTA), Resolve duplicate station numbers (RDSN), or Auto update with national data (AUTO) List Manager actions had *not* been run to completion as of yet, we saw the following two messages:

```
Local/Duplicate station #s exist -- use DSTA
INSTITUTION file not updated with NATIONAL data -- use AUTO
```

The software is telling us to complete the required steps (i.e., **Steps #6 - #8** shown previously).

Running the Required clean up actions (CHCK) List Manager action *prior* to completing **Step #8** but *after* completing **Steps #6 and #7** shown previously, you will be presented with the following List Manager screen:

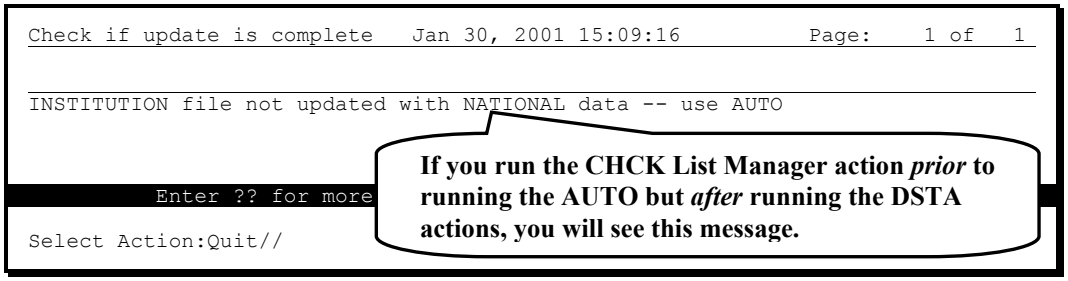

Figure 30: Using the Required clean up actions (CHCK) action—After running the DSTA option but prior to running the AUTO action

In the previous example (Figure 30), since the Auto update with national data (AUTO) List Manager action has *not* been run to completion but we have run the Delete local/dup. station # (DSTA) and Resolve duplicate station numbers (RDSN) List Manager actions, we saw the following message:

```
INSTITUTION file not updated with NATIONAL data -- use AUTO
```

The software is telling us to complete the required step (i.e., **Step #8** shown previously).

Running the Required clean up actions (CHCK) List Manager action *after* completing *all* of the required steps (i.e., **Steps #6 - #8** shown previously), you will be presented with the following List Manager screen:

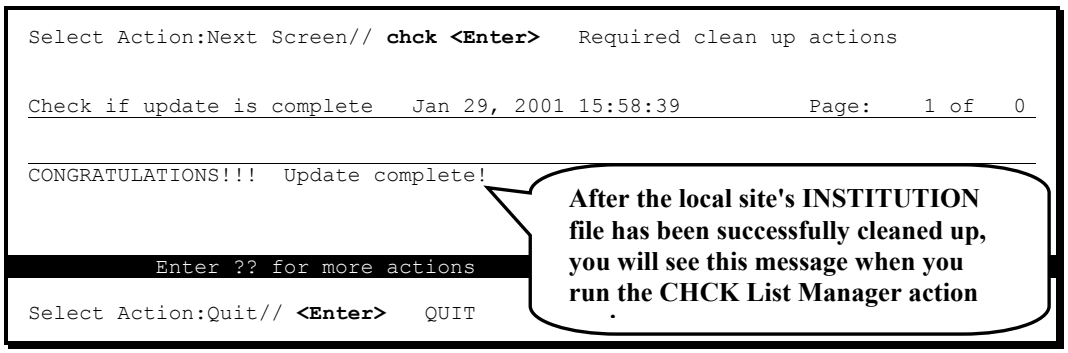

Figure 31: Using the Required clean up actions (CHCK) action—After running the DSTA and AUTO actions

Since all required steps have now been successfully completed (i.e., **Steps #6 - #8**), we are finished with the local site's INSTITUTION file cleanup. The software informed us of this fact when it displayed the following message:

```
CONGRATULATIONS!!!  Update complete!
```

10.) When the Cleanup process is completed, log off of the system.

Add/Modify Local Institution Data

The Local Site Institution Master File Administrator(s) will continue to use the Institution Edit option [XU-INSTITUTION-E] on the Kernel Management Menu [XUKERNEL] in order to add or modify *local* data entries (non-*national* data entries) in the INSTITUTION file (#4) at their site.

IFR Patch XU*8.0*209 will prohibit local sites from directly adding, deleting, or editing certain fields in *national* data entries in the INSTITUTION file:

- **National Data Entries—**Entries in the INSTITUTION file that have an assigned STATION NUMBER (#99) and a have a STATUS (#11) set to "National." Only the Institution Master File (IMF) on FORUM will originate the *national* entries that will automatically be disseminated to the field via the Master File Server (MFS). Only the FORUM Institution Master File Administrator(s) will have access to the FORUM IMF.
- **Local Data Entries—**Entries in the INSTITUTION file that do *not* have an assigned STATION NUMBER (#99) and a STATUS (#11) set to "Local." All other fields (e.g., NAME [#.01]), however, will be available for editing by the sites to enter non-*national* Institutions into their local INSTITUTION file.

Step-by-Step Procedures (1-6)

The following are the step-by-step procedures to add or modify *local*-based data entries in a local site's INSTITUTION file (#4):

1.) Log on to the system.

2.) Navigate to the **Kernel Management Menu [XUKERNEL],** under the Operations Management menu [XUSITEMGR], an example is shown below:

```
Select Systems Manager Menu Option: OPERAtions Management


          System Status
          Introductory text edit
          CPU/Service/User/Device Stats
   RJD    Kill off a users' job
          Alert Management ...
          Alpha/Beta Test Option Usage Menu ...
          Clean old Job Nodes in XUTL
          Delete Old (>14 d) Alerts
          Kernel Management Menu ...
          Post sign-in Text Edit
          User Management Menu ...

Select Operations Management Option: KERNEL Management Menu


          Enter/Edit Kernel Site Parameters
          Institution Edit
          Kernel New Features Help

Select Kernel Management Menu Option:
```

The Institution Edit Option [XU-INSTITUTION-E] is used to edit *local* INSTITUTION file (#4)

Figure 32: Navigating to the Kernel Management Menu

3.) Choose the **Institution Edit option [XU-INSTITUTION-E]**, as shown below:

```
          Enter/Edit Kernel Site Parameters
          Institution Edit
          Kernel New Features Help

Select Kernel Management Menu Option: INSTITution Edit

Select INSTITUTION NAME:
```

Figure 33: Choosing the Institution Edit option

4.) Enter a new Institution NAME (see **Step #4a** that follows) or choose an existing Local entry for modifications (see **Step #4b** that follows).

NOTE: *Local entries can use the same name that is found in a national entry. However, sites should be aware that identical names in both a national and a local entry might cause confusion at the local level (e.g., when running local reports based on the Institution Name).*

a. Adding a New *Local* Entry:

```
Select INSTITUTION NAME: ?
 Answer with INSTITUTION NAME, or STATUS, or STATION NUMBER, or
     OFFICIAL VA NAME, or CURRENT LOCATION, or NAME (CHANGED FROM)
 Do you want the entire 1985-Entry INSTITUTION List? YES <Enter>  (Yes)
   Choose from:
   13TH & MISSSION              CA  D          662BU
   516BAY PINES                 FL  MC(M)
   ABILENE                      TX  CBOC       519HC
   ABILENE                      TX  ORC        519HA
   ABILENE                      KS  CBOC       677GC
   ABILENE                      KS  ORC        677HB
   ABILENE KS
   AIR FORCE                        USAF       381
   AKRON                        OH  CBOC       541GG
   [illegible]                  NM  CBOC       501GI
   [illegible]                  NY  VAMC       500       INACTIVE Jul 01, 2000
   [illegible]                  GA  CBOC       557GB
   [illegible]                  NY  PRRTP      459PA
   [illegible]                  NY  VANB       5009AA
   [illegible]                  NY  CBOC       500GA
   [illegible]                  NY  CBOC       500GD     INACTIVE Jul 01, 2000
   [illegible]                  NY  PRRTP      500PA     INACTIVE Jul 01, 2000
   ALBANY                       NY  VAMC       528A8
   ALBANY AREA                  NY  NC         917
   ALBANY RURAL                 NY  SL         803IU
   '^' TO STOP: ^
        You may enter a new INSTITUTION, if you wish
        Name must be 3-30 characters -- if national entry, do not edit!

Select INSTITUTION NAME: TEST MEDICAL CENTER
  Are you adding 'TEST MEDICAL CENTER' as a new INSTITUTION (the 1985TH)?
No// YES <Enter> (YES)
```

This is a sample list of current Institutions in a local site's INSTITUTION file.

Here we've decided to enter a new Local Institution (i.e., "TEST MEDICAL CENTER") into the INSTITUTION file.

Figure 34: Entering a new *local* Institution into the local site's INSTITUTION file

In this example (Figure 34), we first entered a single question mark ("**?**") at the "Select INSTITUTION NAME:" prompt and then answered "**YES**" at the "Do you want the entire 1985-Entry INSTITUTION List?" prompt in order to see a list of current Institution in our local INSTITUTION file.

For this example (Figure 34), we chose to enter a new *Local* Institution by entering "**TEST MEDICAL CENTER**" (i.e., a new Institution NAME) at the "Select INSTITUTION NAME:" prompt. We confirmed that we wanted to create a new entry by answering "**YES**" at the "Are you adding 'TEST MEDICAL CENTER' as a new INSTITUTION (the 1985TH)? No//" prompt.

After entering the new NAME, we were automatically placed into a ScreenMan form, as shown below:

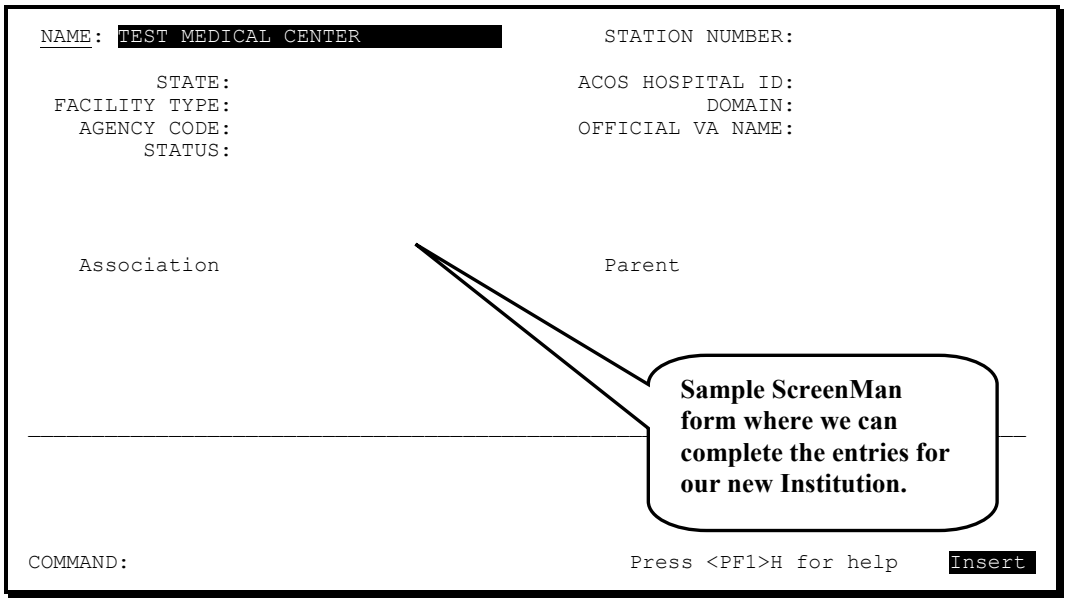

Figure 35: ScreenMan form showing the new "TEST MEDICAL CENTER" Institution

At this point only the NAME field (#.01) has been completed. We can now add the other information with regards to this new *Local* Institution entry (see **Step #5** that follows).

If you only enter a new Institution NAME and then try to save your entry without making any other field entries, you will see the following display:

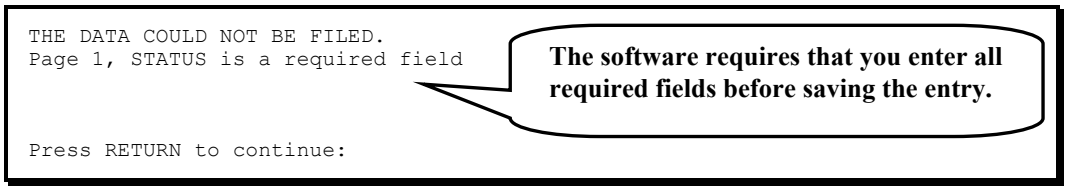

Figure 36: Sample error display screen

b. Modifying an Existing Entry:

If we had entered an existing *Local* Institution NAME entry at the "Select INSTITUTION NAME:" prompt (e.g., 516BAY PINES, see the sample list of existing Institution NAMES in Figure 34 shown previously), we would have been put into a ScreenMan form similar to the following:

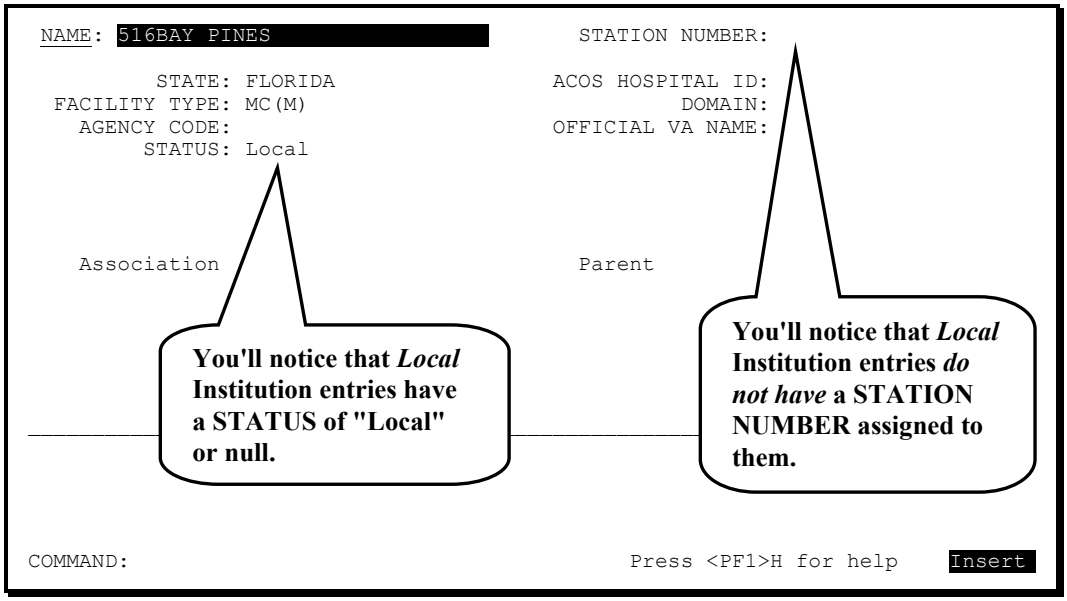

Figure 37: Sample ScreenMan form of an existing *local* Institution entry

Local sites *can* edit any of the following fields on a *Local* entry in the local site's INSTITUTION file while using the Institution Edit option [XU-INSTITUTION-E]. The following fields are listed in field number order:

- NAME (#.01, only on initial entry of a new Institution)

  NOTE: *Local entries can use the same name that is found in a national entry. However, sites should be aware that identical names in both a national and a local entry might cause confusion at the local level (e.g., when running local reports based on the Institution Name).*

- STATE (#.02)
- STATUS (#11, valid value is "Local")
- FACILITY TYPE (#13)
- ASSOCIATIONS (#14)
  - ASSOCIATIONS (#.01)
  - PARENT OF ASSOCIATION (#1)
- ACOS HOSPITAL ID (#51)
- DOMAIN (#60)
- AGENCY CODE (#95)
- OFFICIAL VA NAME (#100)

Local sites *cannot* edit the following field on a *Local* entry in the local site's INSTITUTION file (#4) while using the Institution Edit option [XU-INSTITUTION-E]:

- STATION NUMBER (#99)

If we had entered an existing *National* Institution name entry at the "Select INSTITUTION NAME:" prompt (e.g., 13TH & MISSION, see the sample list of existing Institution NAMES in Figure 34 shown previously), we would have been put into a ScreenMan form similar to the following:

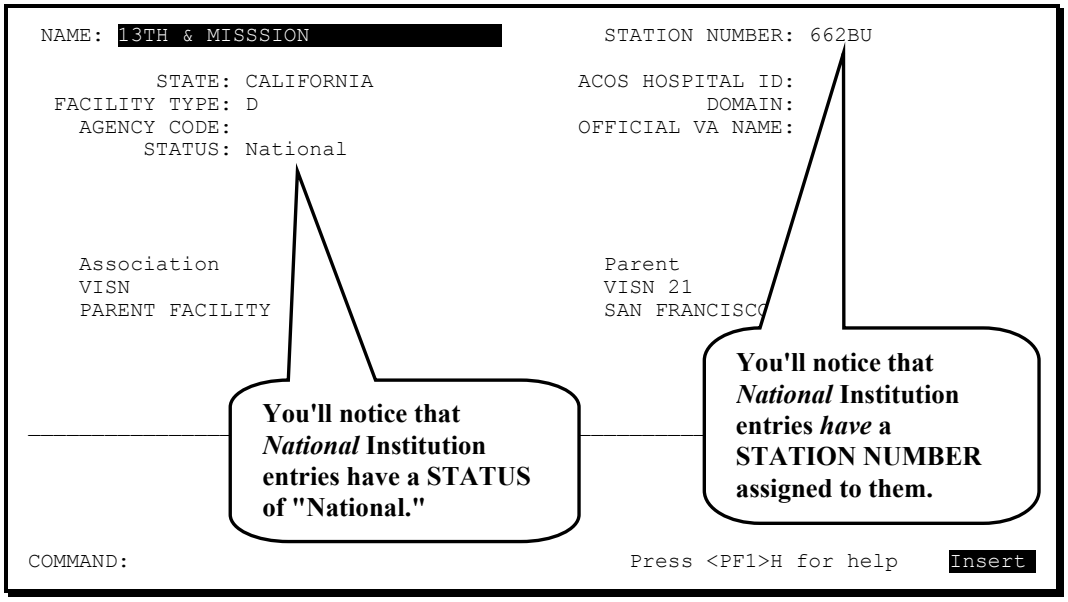

Figure 38: Sample ScreenMan form of an existing *national* Institution entry

Local sites are *not permitted* to edit any of the following fields on a *National* entry in the local site's INSTITUTION file while using the Institution Edit option [XU-INSTITUTION-E]. The following fields are listed in field number order:

- NAME (#.01)
- STATE (#.02)
- FACILITY TYPE (#13)
- STATUS (#11)
- STATION NUMBER (#99)
- OFFICIAL VA NAME (#100)

c. Deleting an Existing Entry:

To delete a *Local* entry from the INSTITUTION file (#4), enter an at-sign (i.e., "**@**" uppercase 2 on most keyboards) in the NAME field (#.01), as shown below:

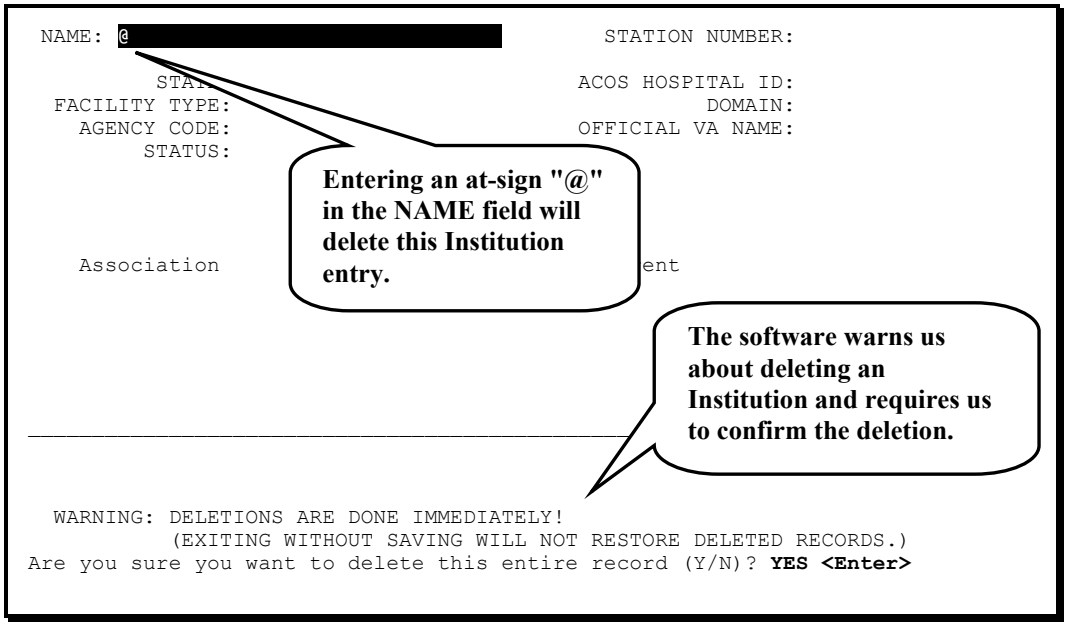

Figure 39: Deleting a *Local* Institution

The software will present the following warning:

```
WARNING: DELETIONS ARE DONE IMMEDIATELY!
           (EXITING WITHOUT SAVING WILL NOT RESTORE DELETED RECORDS.)
```

It is *not* recommended that you delete an INSTITUTION file entry *unless* it was just immediately created in error.

After confirming the deletion by entering "**YES**" at the "Are you sure you want to delete this entire record (Y/N)?" prompt, the following ScreenMan form was displayed:

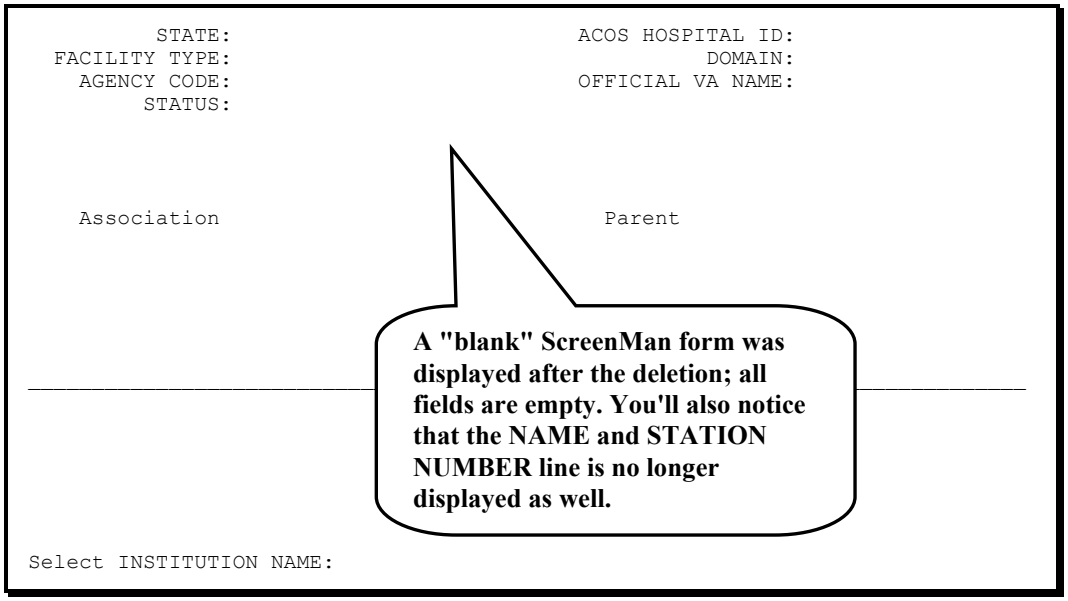

Figure 40: ScreenMan form displayed after a deletion

5.) Add/Modify the following fields displayed on the ScreenMan form for *Local* entries (listed in field number order):

- NAME (#.01, only on initial entry of a new Institution)
- STATE (#.02)
- STATUS (#11, valid value is "Local")
- FACILITY TYPE (#13)

  NOTE: *For a list of TYPEs and their acronym definitions, please refer to "Appendix D—Facility Type Acronyms" in this manual.*

- ASSOCIATIONS (#14, Multiple)
  - ASSOCIATIONS (#.01)
  - PARENT (#1)
- ACOS HOSPITAL ID (#51)
- DOMAIN (#60)
- AGENCY CODE (#95)
- OFFICIAL VA NAME (#100)

The software will *prevent* you from entering or modifying the following fields of a record in the local INSTITUTION file with a STATUS field set to "National." The following fields are listed in field number order:

- NAME (#.01)
- STATE (#.02)
- STATUS (#11)
- FACILITY TYPE (#13)
- STATION NUMBER (#99)
- OFFICIAL VA NAME (#100)

For example, in Figure 41 below, we tried entering a STATION NUMBER for a *Local* entry; however, we were automatically notified that we *couldn't* enter a STATION NUMBER on any *Local* entries:

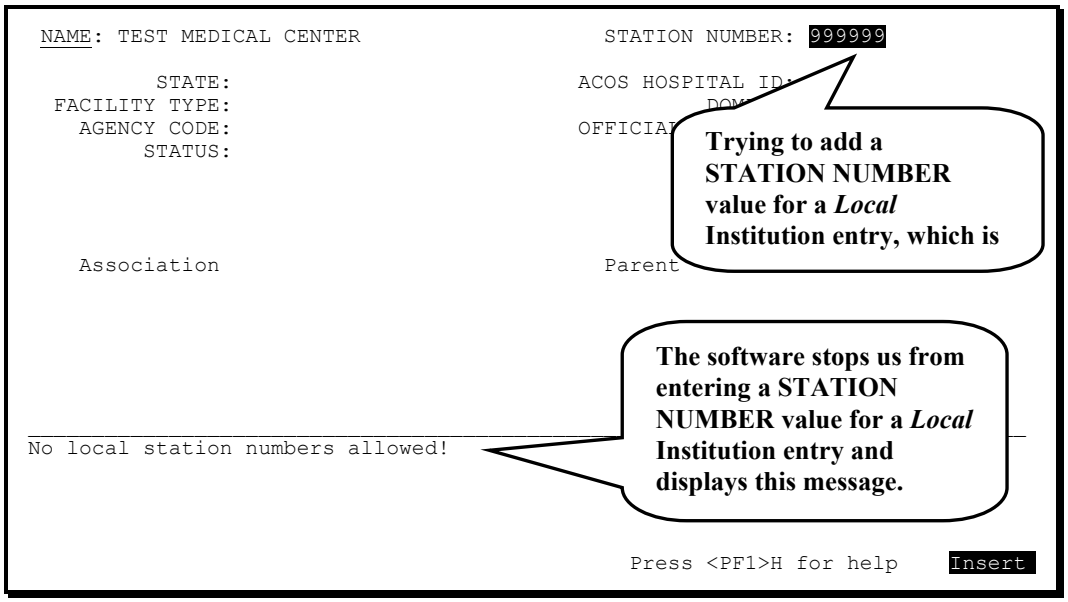

Figure 41: Trying to enter a STATION NUMBER field in a *local* Institution entry

In this example (Figure 41), we tried entering a STATION NUMBER by entering "**999999**" at the "STATION NUMBER:" prompt in the ScreenMan form. Since entering a STATION NUMBER for a *Local* entry is *not* allowed, the software displayed the following message:

```
No local station numbers allowed!
```

In another example (Figure 42 below), we tried entering "National" as the STATUS; however, we were not allowed and the Help for that field was automatically generated:

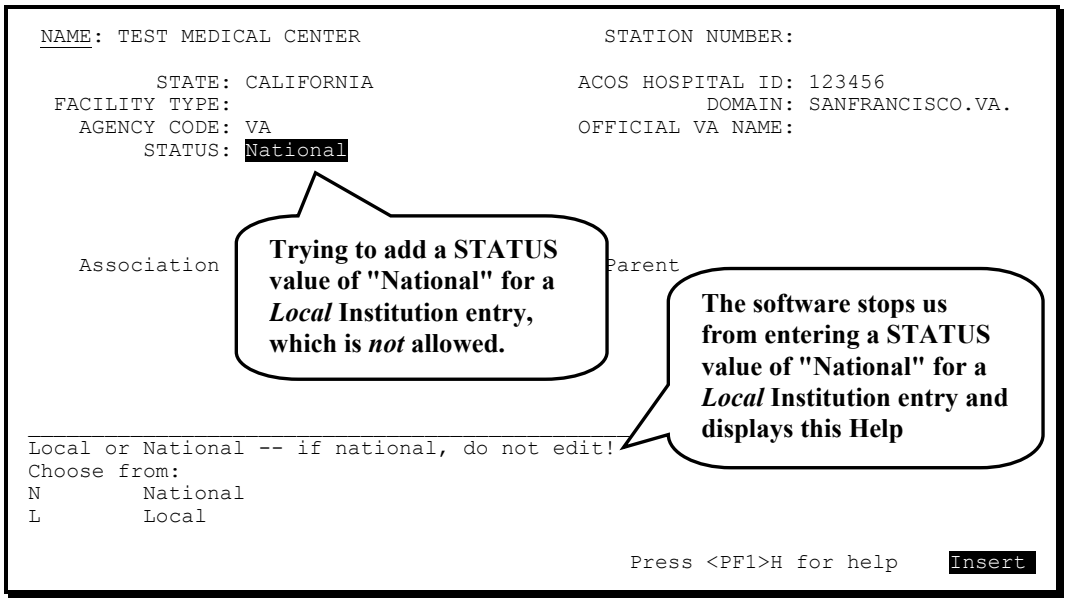

Figure 42: Trying to enter "National" in the STATUS field in a *local* Institution entry

In this example (Figure 42), we tried entering a National STATUS by entering "**National**" at the "STATUS:" prompt in the ScreenMan form. Since entering a STATUS of "National" for a *Local* entry is *not* allowed, the software displayed the following Help message:

```
Local or National -- if national, do not edit!
Choose from:
N        National
L        Local
```

Even though "National" is shown in the list of choices, you can only enter "Local" as a STATUS for *Local* entries!

In the following example (Figure 43 below), we tried entering an invalid FACILITY TYPE for a *Local* entry, which automatically generates the Help for that field:

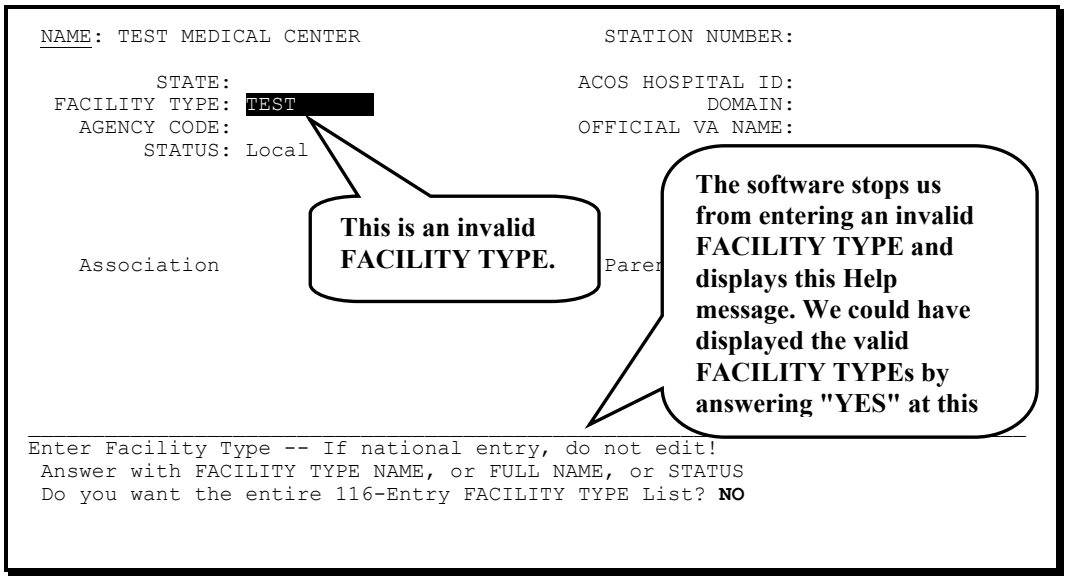

Figure 43: Entering an invalid FACILITY TYPE in a *local* Institution entry

In this example (Figure 43), we tried entering an invalid FACILITY TYPE by entering "**TEST**" at the "FACILITY TYPE:" prompt in the ScreenMan form. Since you must enter a valid FACILITY TYPE, the software displayed the following Help message:

```
Enter Facility Type -- If national entry, do not edit!
 Answer with FACILITY TYPE NAME, or FULL NAME, or STATUS
```

We answered "**NO**" at the "Do you want the entire 116-Entry FACILITY TYPE List?" prompt.

NOTE: *For a list of TYPEs and their acronym definitions, please refer to "Appendix D—Facility Type Acronyms" in this manual.*

After we entered a valid FACILITY TYPE and the remaining fields we wanted to populate (i.e., STATE, ACOS HOSPITAL ID, DOMAIN, AGENCY CODE, and OFFICIAL VA NAME), our final ScreenMan form looked like the following:

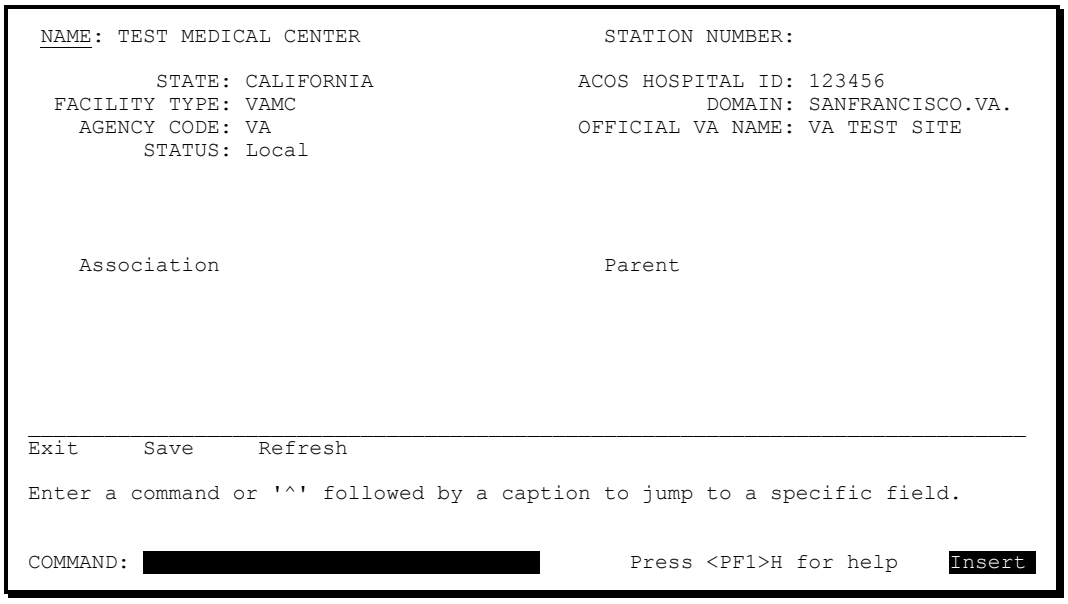

Figure 44: Final ScreenMan form for our *local* Institution file entry

At this point all of our edits/updates are completed, so we are ready to save our data and exit this Institution file entry.

6.) When all of your edits/updates are completed, log off of the system.

Maintenance & Troubleshooting

IFR Patch XU*8.0*209 will create a new mail group at each site (i.e., XUMF INSTITUTION). The Local Site Institution Master File Administrator(s) at a site will be responsible for populating (i.e., Mail Group Coordinator), maintaining, and monitoring this mail group.

The XUMF INSTITUTION mail group will receive bulletins sent via **V*IST*A**'s MailMan software regarding updates to the local site's INSTITUTION file (#4). The mail group at the site will be notified when their local INSTITUTION file has been automatically updated with *national* entries from the Institution Master File (IMF) on FORUM via the Master File Server (MFS). The mail group should be populated with the appropriate personnel located at the site (e.g., Local Site Institution Master File Administrator[s], IRM Chief, ADPAC[s], etc.).

Another duty of the Local Site Institution Master File Administrator(s) is to serve as the point of contact that monitors and troubleshoots any problems with the INSTITUTION and FACILITY TYPE master files located at the site.

Step-by-Step Procedures (1-4)

The following are the suggested step-by-step procedures for monitoring and troubleshooting the master files at the site:

1.) Monitor for Messages sent to the "XUMF INSTITUTION" mail group—When a message is received, the Local Site Institution Master File Administrator(s) should do any of the following:

- **a.** Verify that the master file(s) were successfully updated based on the information contained in the message.
- **b.** Process any error messages sent to the XUMF INSTITUTION mail group.
  - Contact the FORUM Institution Master File Administrator(s) and discuss the problem and devise a solution.
  - When the problem has been resolved, contact the FORUM Institution Master File Administrator(s) to verify that the master file has been successfully updated.

2.) Monitor any **V*IST*A** HL7 error messages regarding transmission errors.

3.) Process any HL7-type error messages.

- **a.** Try to resend an unsent HL7 message.
- **b.** If the problem persists, contact the **V*IST*A** HL7 Team for assistance and advise the FORUM Institution Master File Administrator(s) of the problem.
- **c.** When the problem has been resolved, contact the FORUM Institution Master File Administrator(s) to verify that the master file has been successfully updated.

4.) Return to **Step #1**.

Apendix C—FORUM (Production) IMF Administrator(s) Duties

Introduction

IFR Patch XU*8.0*206 will require that one or more FORUM Institution Master File (IMF) Administrator(s) be assigned to maintain and update the *national* entries in the master files located on FORUM that will be transmitted VHA-wide via the Master File Server (MFS). Initially, these administrators will be member(s) of VHA System Design & Development's Information Infrastructure Service (IIS) Team. Only the FORUM Institution Master File Administrator(s) will hold the XUMF INSTITUTION security key that allows them to edit the master files on FORUM.

The following option will only be available to the FORUM Institution Master File Administrator(s) of the INSTITUTION (#4) master file located on FORUM:

Institution Master File Edit Option [XUMF FORUM INSTITUTION]—Edit *national* entries in the INSTITUTION file located on FORUM.

The following duties will be the responsibility of the FORUM Institution Master File Administrator(s) of the INSTITUTION and FACILITY TYPE master files located on FORUM:

- Process the FORUM master file change notifications.
- Troubleshoot problems with the master files and the Master File Server (MFS) software.

This section provides the step-by-step procedures and general information describing the day-to-day duties and maintenance requirements of the master files on FORUM, as performed by the FORUM Institution Master File Administrator(s).

Processing the Master Files Change Notifications

The primary duty of the FORUM Institution Master File Administrator(s) is to process changes to the Institution Master file (IMF) and Facility Type Master File (FMF) on FORUM.

Step-By-Step Procedures (1-7)

The following are the step-by-step procedures required for processing the master file change notifications on FORUM:

1.) Monitor Microsoft Exchange for E-mail notifications from 045A4 regarding changes to the Institution Master File (IMF) and Facility Type Master File (FMF) on FORUM.

2.) When a master file change notification is received, log on to FORUM.

3.) Choose the appropriate master file edit option:

a. Edits in the INSTITUTION file (#4) on FORUM—Use the Institution Master File Edit option [XUMF FORUM INSTITUTION] to edit the Institution Master File (IMF) on FORUM.

b. Edits in the FACILITY TYPE file (#4.1) on FORUM—Use VA FileMan to edit the Facility Type Master File (FMF) on FORUM.

For this example (Figure 45), we chose the Institution Master File Edit option [XUMF FORUM INSTITUTION] in order to enter a new STATION NUMBER into the FORUM Institution Master File (IMF):

```
Select OPTION NAME: XUMF
     1   XUMF FORUM INSTITUTION       Institution Master File Edit
     2   XUMF INSTITUTION       Institution File Query / Update
CHOOSE 1-2: 1 <Enter>  XUMF FORUM INSTITUTION   Institution Master File Edit
Institution Master File Edit
Enter Station Number:
```

Figure 45: Initial dialogue when using the Institution Master File Edit option [XUMF FORUM INSTITUTION]

As this example shows (Figure 45), to add a new STATION NUMBER (#99) and its associated fields in the INSTITUTION file on FORUM, we chose the XUMF FORUM INSTITUTION option (i.e., Institution Master File Edit) by entering "**1**" at the "CHOOSE 1-2:" prompt when given a list of XUMF options from which to choose.

4.) Add/Update the specified fields for the file in question for the following scenarios.

- Adding a new INSTITUTION file Station Number and associated fields.
- Editing an existing INSTITUTION file Station Number and associated fields.
- Adding a new FACILITY TYPE file Facility Type and associated fields.
- Editing an existing FACILITY TYPE file Facility Type and associated fields.

a. In the following example (Figure 46), we chose to add a new STATION NUMBER (#99) and its associated fields to the INSTITUTION file on FORUM:

```
Enter Station Number: 776
Are you adding a new national entry? YES// <Enter>
Enter Institution Name: OFFICE OF INFORMATION SRV CNTR
NAME: OFFICE OF INFORMATION SRV CNTR  Replace <Enter>
STATION NUMBER: 776// <Enter>
FACILITY TYPE: VAMC <Enter>      VA MEDICAL CENTER
OFFICIAL VA NAME: OFFICE OF INFORMATION SERVICE CENTER
STATE: OHIO
INACTIVE FACILITY FLAG: <Enter>
Select ASSOCIATIONS: <Enter>
Select EFFECTIVE DATE: <Enter>
Are you ready to broadcast? YES// <Enter>
...broadcasting the Institution...

Sent.

Enter Station Number:
```

After entering the new Institution field entries, we were ready to broadcast it VHA-wide.

Figure 46: Adding a new Station Number to the FORUM IMF

As you can see from this example (Figure 46), we entered a new Institution by entering the following fields (listed in the order of entry):

- **STATION NUMBER (#99)—**We entered a new STATION NUMBER of "**776**" at the "Enter Station Number:" prompt.

  We confirmed our intentions by pressing the **Enter** key to accept the default of "YES" at the "Are you adding a new national entry? YES//" prompt.

- **NAME (#.01)—**We entered a new NAME of "**OFFICE OF INFORMATION SRV CNTR**" that will be associated with our new STATION NUMBER at the "Enter Institution Name:" prompt.

  The software echoed our NAME field value back to make sure we had entered it correctly. If we wanted to change it at this point, we would enter any corrections at the "Replace" prompt. Since our entry was correct, we simply pressed the **Enter** key at the "NAME: OFFICE OF INFORMATION SRV CNTR Replace" prompt to continue to the next field.

  Also, the software then echoed our STATION NUMBER field value back to make sure we had entered it correctly. Since our entry was correct, we simply pressed the **Enter** key at the "STATION NUMBER: 776//" prompt to continue to the next field.

- **FACILITY TYPE (#13)—**We entered "**VAMC**" as the FACILITY TYPE that will be associated with our new STATION NUMBER at the "FACILITY TYPE:" prompt.

  NOTE: *The FACILITY TYPE field vale entered must be a valid FACILITY TYPE found in the FACILITY TYPE file (#4.1).*

- **OFFICIAL VA NAME (#100)—**We entered a new OFFICIAL VA NAME of "**OFFICE OF INFORMATION SERVICE CENTER**" that will be

associated with our new STATION NUMBER at the "OFFICIAL VA NAME:" prompt.

- **STATE (#.02)—**We entered "**OHIO**" as the STATE that will be associated with our new STATION NUMBER at the "STATE:" prompt.
- **INACTIVE FACILITY FLAG (#101)—**Since we did not want to enter an INACTIVE FACILITY FLAG, we simply pressed the **Enter** key at the "INACTIVE FACILITY FLAG:" prompt to continue to the next field.
- **ASSOCIATIONS (#14)—**Multiple. Since we did not want to enter any ASSOCIATIONS, we simply pressed the **Enter** key at the "Select ASSOCIATIONS:" prompt to continue to the next field.

  NOTE: *The following are subfields in the ASSOCIATIONS Multiple that you can edit using this option:*

  - ASSOCIATIONS (#.01)
  - PARENT OF ASSOCIATION (#1)

- **HISTORY (#999)—**Multiple.
  - **EFFECTIVE DATE (#.01)—**Since we did not want to enter any EFFECTIVE DATE, we simply pressed the **Enter** key at the "Select EFFECTIVE DATE:" prompt to continue to the last step.

Lastly, once all of our entries were completed, we were ready to broadcast this new Institution VHA-wide by pressing the **Enter** key to accept the default of "YES" at the "Are you ready to broadcast? YES//" prompt.

The software displayed the following message:

```
...broadcasting the Institution...
```

When the broadcast was complete, the following message was displayed:

```
Sent.
```

NOTE: *An Addition or modification of a national entry in the Institution Master File (IMF) on FORUM is broadcast one at a time.*

b. In the following example (Figure 47), we chose to edit an existing STATION NUMBER (#99) and its associated fields in the INSTITUTION file on FORUM:

```
Enter Station Number: 776
NAME: OFFICE OF INFORMATION SRV CNTR  Replace <Enter>
STATION NUMBER: 776// <Enter>
FACILITY TYPE: VAMC// <Enter>
OFFICIAL VA NAME: OFFICE OF INFORMATION CENTER  Replace CEN <Enter>
With SERVICE CEN
  Replace <Enter>
   OFFICE OF INFORMATION SERVICE CENTER
STATE: OHIO// ^
Are you ready to broadcast? YES// <Enter>
...broadcasting the Institution...

Sent.

Enter Station Number:
```

After editing the Institution field entries, we were ready to broadcast it VHA-wide.

Figure 47: Editing an Existing Station Number in the FORUM IMF

As you can see from this example (Figure 47), we wanted to modify the OFFICIAL VA NAME field (#100) value from "OFFICE OF INFORMATION CENTER" to "OFFICE OF INFORMATION SERVICE CENTER" for Station Number 776 that we had just entered in Step 4a (See Figure 46).

After entering **776** at the "Enter Station Number:" prompt, we pressed the **Enter** key until we arrived at the "OFFICIAL VA NAME: OFFICE OF INFORMATION CENTER Replace" prompt.

We only needed to change a portion of the name (i.e., "CENTER " to "SERVICE CENTER"), thus, we entered "**CEN**" at the "Replace" prompt and then entered "**SERVICE CEN**" at the "With" prompt.

The software confirmed our change by redisplaying the newly modified OFFICIAL VA NAME field. Since the modified name was correct, we pressed the **Enter** key after the "Replace" prompt.

We didn't want to make any more changes, so we entered an up-arrow ("^") at the "STATE: OHIO//" prompt.

Now that all of our updates were completed, we were ready to broadcast this updated Institution VHA-wide by pressing the **Enter** key to accept the default of "YES" at the "Are you ready to broadcast? YES//" prompt.

The software displayed the following message:

```
...broadcasting the Institution...
```

When the broadcast was complete, the following message was displayed:

```
Sent.
```

NOTE: *An Addition or modification of a national entry in the Institution Master File (IMF) on FORUM is broadcast one at a time.*

5.) After broadcasting the updates, an HL7 MFN segment gets generated. The following is an example of an HL7 MFN segment for the new Station Number added (See **Step 4a**, shown previously):

```
*****************************************************************************


DATE/TIME ENTERED: SEP 15, 2000@10:10:32
  SERVER APPLICATION: XUMF MFN          TRANSMISSION TYPE: OUTGOING
  MESSAGE ID: 0126                      PARENT MESSAGE: SEP 15, 2000@10:10:32
  PRIORITY: IMMEDIATE                   RELATED EVENT PROTOCOL: XUMF MFN
  MESSAGE TYPE: SINGLE MESSAGE
 MESSAGE TEXT:
 MFI^Z04^MFS^REP^20000915101032^20000915101032^NE
 MFE^MUP^^19000091^776~STATION NUMBER~D
 ZIN^OFFICE OF INFORMATION SRV CNTR^776^National^VAMC~FACILITY TYPE~VA^OFFICE OF
 INFORMATION SERVICE CENTER^^OHIO^^^^^^
  STATUS: SUCCESSFULLY COMPLETED
  DATE/TIME PROCESSED: SEP 15, 2000@10:10:36
  NO. OF CHARACTERS IN MESSAGE: 204     NO. OF EVENTS IN MESSAGE: 1


*****************************************************************************
```

Figure 48: Sample HL7 MFN segment information

A MailMan E-mail message gets sent to the XUMF INSTITUTION mail group at all sites. The following is an example of the E-mail sent for the new Station Number added (See **Step 4a**, shown previously):

```
Subj: Master File Server - update notification - INSTITUTION file
[#56499] 04 Aug 00 15:22  16 lines
From: ADMINISTRATOR,ROGER  In 'IN' basket.   Page 1
-------------------------------------------------------------------------------
The following Master File Notification (MFN) message was
received and processed by the Master File Server:

  MID:  037

The following INSTITUTION (#4) file entry has been Updated:

  IEN: 7436

  NAME: OFFICE OF INFORMATION SRV CNTR
  OFFICIAL VA NAME: OFFICE OF INFORMATION SERVICE CENTER
  STATION NUMBER: VAMC

  776
  OFFICE OF INFORMATION SRV CNTR
  OFFICE OF INFORMATION SERVICE CENTER

Enter message action (in IN basket): Ignore//
```

Figure 49: Sample INSTITUTION file update message sent to the XUMF INSTITUTION mail group

6.) When all change notifications have been processed, log off from FORUM.

7.) Return to **Step #1**.

Troubleshooting

Another duty of the FORUM Institution Master File Administrator(s) is to monitor and troubleshoot any problems with the Institution Master file (IMF) and Facility Type Master File (FMF) located at the sites and on FORUM as well as the Master File Server (MFS) software.

Step-By-Step Procedures

The following are the suggested step-by-step procedures for monitoring and troubleshooting the FORUM master files and Master File Server (MFS) software:

1.) Monitor the "XUMF INSTITUTION" mail group on FORUM—The FORUM Institution Master File Administrator(s) should look for any error messages from sites that fail to successfully update their local master files.

2.) Process any error messages sent to the XUMF INSTITUTION mail group on FORUM.

- **a.** Try to resend an unsent message to the site in question.
- **b.** If the problem persists, contact the Local Site Institution Master File Administrator(s) at the site and discuss the problem and devise a solution.
- **c.** When the problem has been resolved, contact the Local Site Institution Master File Administrator(s) at the site to verify that the master file has been successfully updated.

3.) Monitor any **V*IST*A** HL7 error messages regarding transmission errors from FORUM to the sites.

4.) Process any HL7-type error messages.

- **a.** Try to resend an unsent HL7 message.
- **b.** If the problem persists, contact the **V*IST*A** HL7 Team for assistance and advise the Local Site Institution Master File Administrator(s) at the site of the problem.
- **c.** When the problem has been resolved, contact the Local Site Institution Master File Administrator(s) at the site to verify that the master file has been successfully updated.

5.) Return to **Step #1**.

Apendix D—Facility Type Acronyms

The following table lists the current TYPE acronyms/codes and their associated Full Name/Definition:

TYPE (ACRONYM)	FULL NAME (DESCRIPTION)
AIMC	ACADEMIC AFFAIRS INF. MGMT CENTER
AO	AREA OFFICE
AR	ACCOUNTS RECEIVABLE
BDC	BENEFITS DELIVERY CENTER
BIRLS	BENEFICIARY INFORMATION RECORD LOCATOR SYSTEM
CBOC	COMMUNITY BASED OUTPATIENT CLINIC
CC	CONFEDERATE CEMETERY
CHAMPUS	CHAMPUS
CHAMPVA	CIVILIAN HEALTH AND MEDICAL PROGRAM VETERANS ADMINISTRATION
CHEP	COOPERATIVE HEALTH EDUCATION PROGRAM
CIVH	CIVILIAN HOSPITAL
CM	CONFEDERATE MONUMENT
CMOPC	CONSOLIDATED MAIL OUTPATIENT PHARMACY
CO	CENTRAL OFFICE
CP	CONFEDERATE PLOT
D	DOMICILIARY
DEC	DENTAL EDUCATION CENTER
DENT	DENTAL CLINIC
DOD	DEPARTMENT OF DEFENSE
DPC	VA DATA PROCESSING CENTER
EES	EMPLOYEE EDUCATION SYSTEMS

TYPE (ACRONYM)	FULL NAME (DESCRIPTION)
ETC	ENGINEERING TRAINING CENTER
GC	GENERAL COUNSEL
GL	GOVERNMENT LOT
HOST	HOSPITAL OPEN SYSTEMS TECHNOLOGY
IG	INSPECTOR GENERAL
HIS	INDIAN HEALTH SERVICE
IHSD	IHS DEVELOPMENT CENTER
IVMP	INCOME VERIFICATION MATCH PROGRAM
M&ROC	MEDICAL AND REGIONAL OFFICE CENTER
MC(M)	MEDICAL CENTER (MEDICAL LOCATION)
MORC	MOBILE OUTREACH CLINIC
MPI	MASTER PATIENT INDEX
MSN	MEMORIAL SERVICE NETWORK
MUG	MUMPS USERS GROUP
NAC	NATIONAL ACQUISITION CENTER
NC	NATIONAL CEMETERY
NCSO	NATIONAL CEMETERY STATION OFFICE
NHC	NURSING HOME CARE
NIB	NATIONAL INDUSTRIES FOR THE BLIND
NOA	NOA
NVA	FEDERAL HOSPITAL (OTHER)
OC	OUTPATIENT CLINIC (INDEPENDENT)
OCMC	OUTPATIENT CLINIC (SUBORDINATE)
OCS	OUTPATIENT CLINIC SUBSTATION
OIFO	OFFICE OF INFORMATION FIELD OFFICE

TYPE (ACRONYM)	FULL NAME (DESCRIPTION)
OIG/ROA	REGIONAL OFFICE OF AUDIT
OIG/ROI	REGIONAL OFFICE OF INVESTIGATIONS
OIG/SOA	SUB OFFICE OF AUDIT
OPC	OUT PATIENT CLINIC
ORC	OUTREACH CLINIC
OTHER	OTHER
PDC	PROSTHETIC DISTRIBUTION CENTER
PHARM	PHARMACY
PHS	PUBLIC HEALTH SERVICE HOSPITAL
PRDC	PROSTHETICS RESEARCH AND DEVELOPMENT CENTER
PRRTP	PSYCHOLOGICAL RESIDENTIAL REHAB TREATMENT PROGRAM
PUBH	PUBLIC HOSPITAL
RO	REGIONAL OFFICE
RO&IC	REGIONAL OFFICE AND INSURANCE CENTER
RO-OC	REGIONAL OFFICE - OUTPATIENT CLINIC
RPC	RECORDS PROCESSING CENTER
RPVM	REPUBLIC OF PHILIPPINES VETERANS MEMORIAL
SARRTP	SUBSTANCE ABUSE REHAB TREATMENT PROGRAM
SD	SUPPLY DEPOT
SDC	SYSTEMS DEVELOPMENT CENTER
SL	SOLDIERS LOT
SOC	SATELLITE OUTPATIENT CLINIC
STDIR	STATE DIRECTORS OF VA
STDM	STATE DOMICILIARY
STHH	STATE HH

TYPE (ACRONYM)	FULL NAME (DESCRIPTION)
STNB	STATE NURSING BEDS
SVH	STATE VETERANS HOME
USAF	US AIR FORCE HOSPITAL
USAH	US ARMY HOSPITAL
USCG	US COAST GUARD HOSPITAL
USMC	US MARINE CORP HOSPITAL
USNH	US NAVAL HOSPITAL
VAIP	VA INSURANCE PAYMENT
VAMC	VA MEDICAL CENTER
VANB	VA NURSING BEDS
VANPH	NEURAL PSYCHIATRIC HOSPITAL
VASDC	VA SERVICE & DISTRIBUTION CENTER
VBA	VETERANS BENEFITS ADMINISTRATION
VBAML	VBA MORTGAGE LOAN
VCSFC	VETERANS CANTEEN SERVICE FINANCE CENTER
VCSFO	VETERANS CANTEEN SERVICE FIELD OFFICE
VEND/CONS	VENDOR/CONSULTANT
VET CENTER	VETERANS CENTER
VISN	VETERANS INTEGRATED SERVICE NETWORK

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